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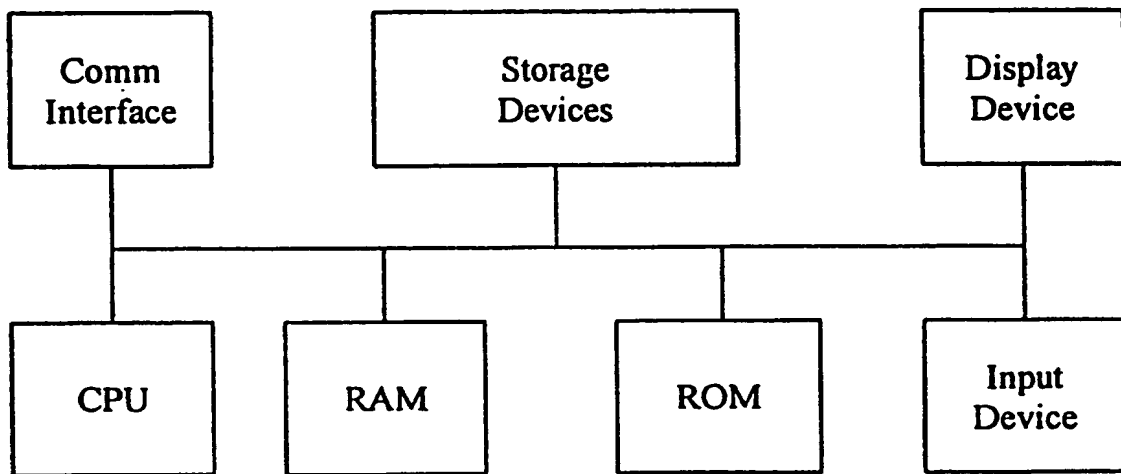


FIG. 1A

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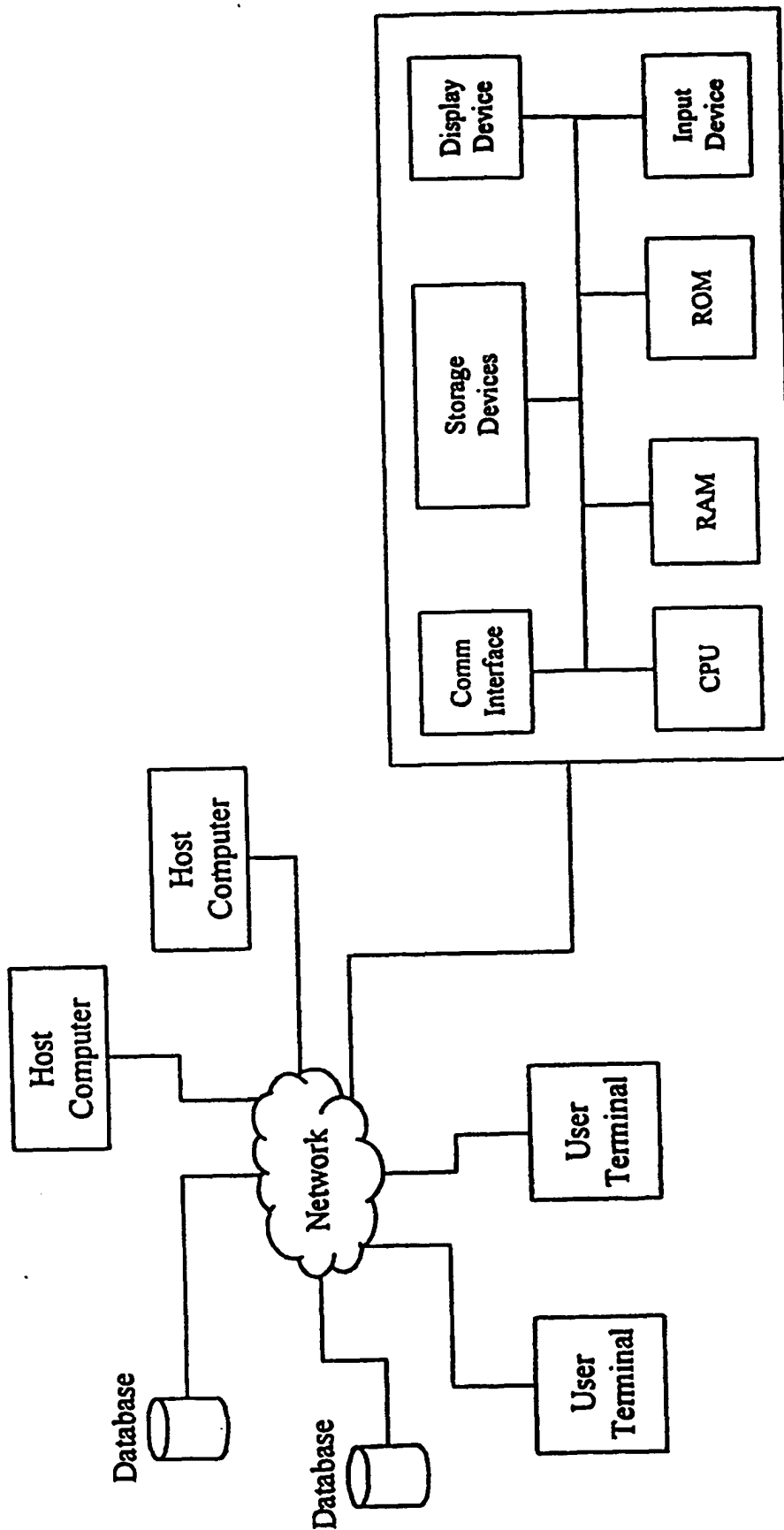
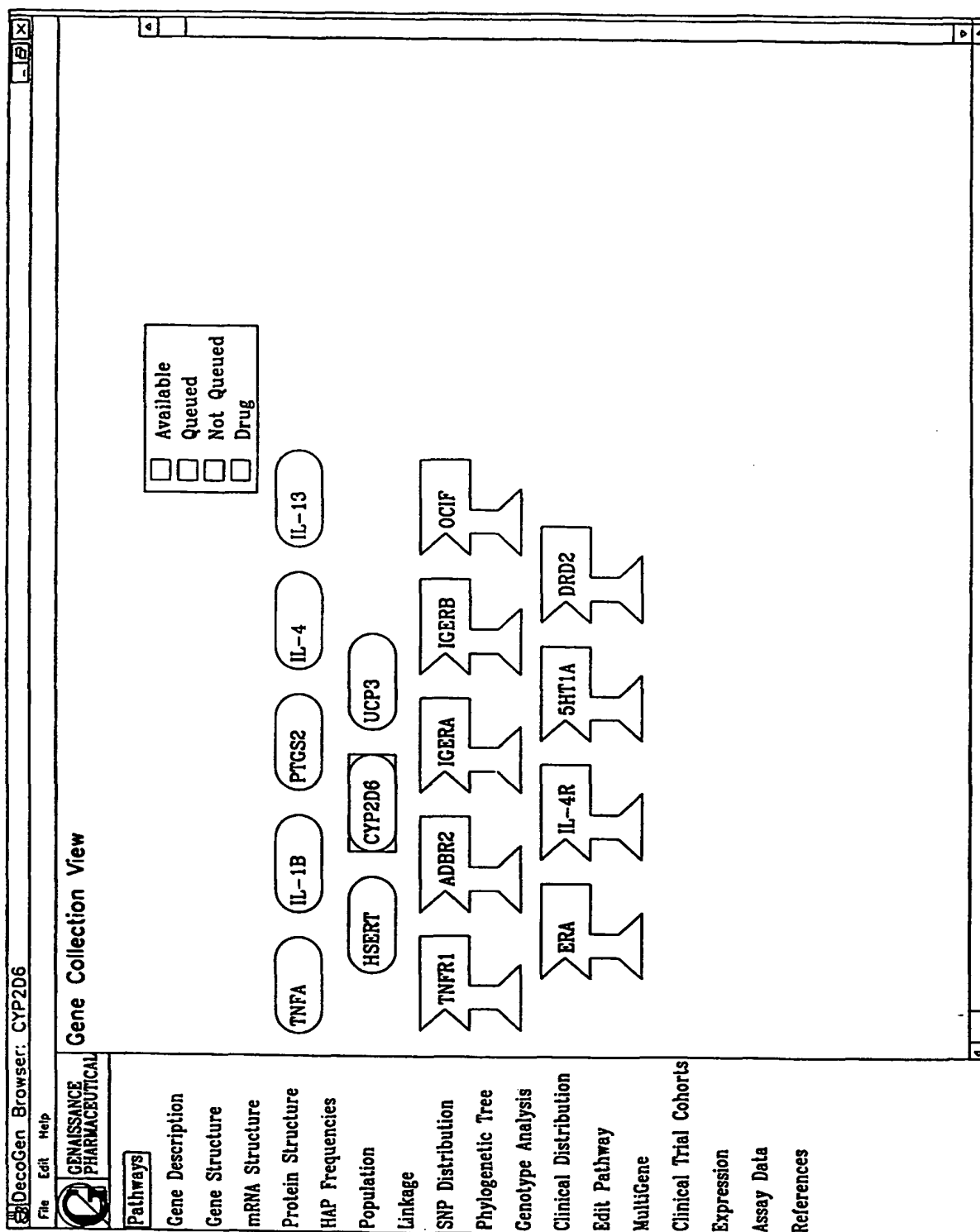


FIG. 1B

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FIG. 2



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FIG. 3

DecoGen Browser: CYP2D6

File Edit Help

GENVAISSANCE PHARMACEUTICAL

Pathways

Gene Description

Gene Structure

mRNA Structure

Protein Structure

HAP Frequencies

Population

Linkage

SNP Distribution

Phylogenetic Tree

Genotype Analysis

Clinical Distribution

Edit Pathway

MultiGene

Clinical Trial Cohorts

Expression

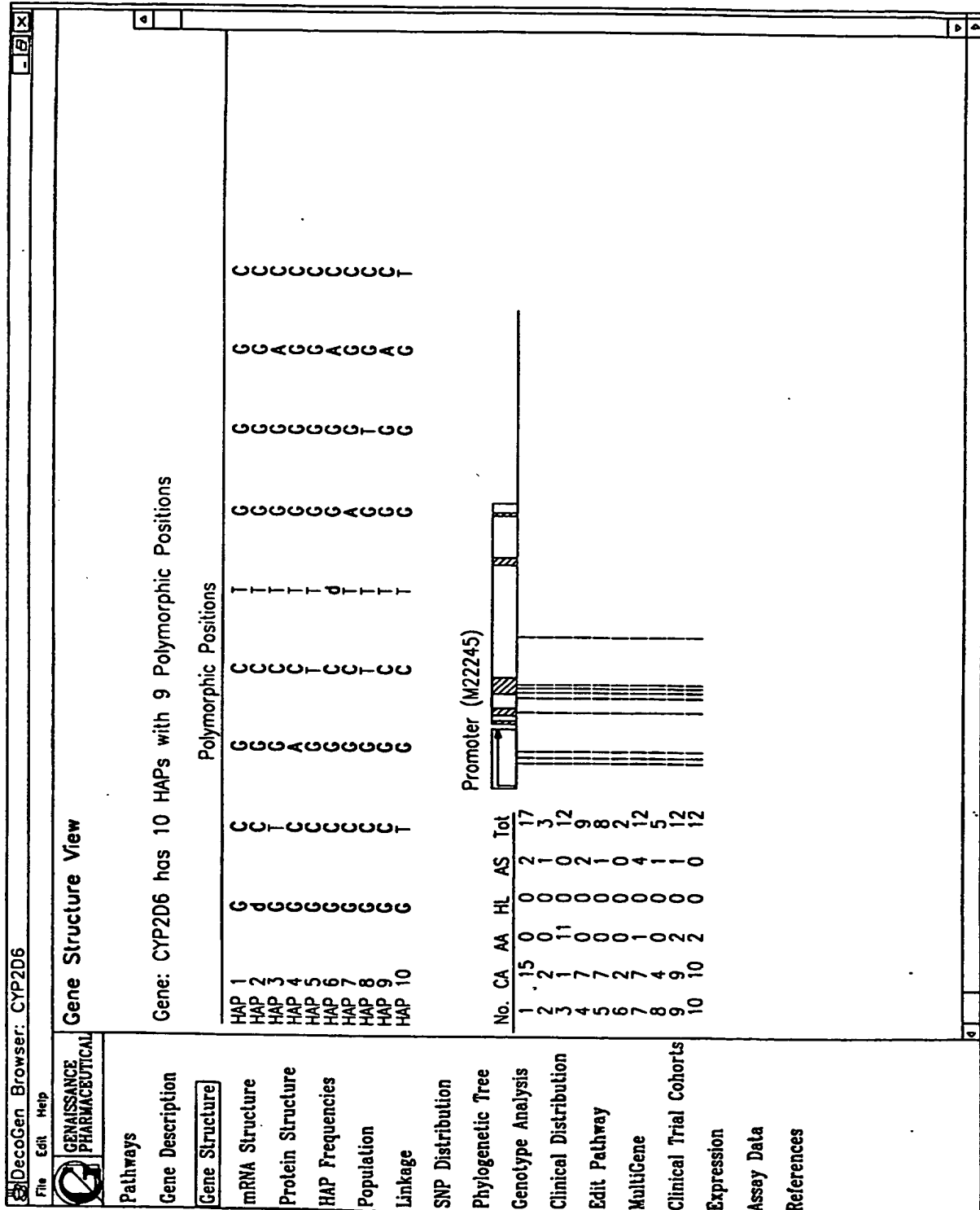
Assay Data

References

Gene Description View

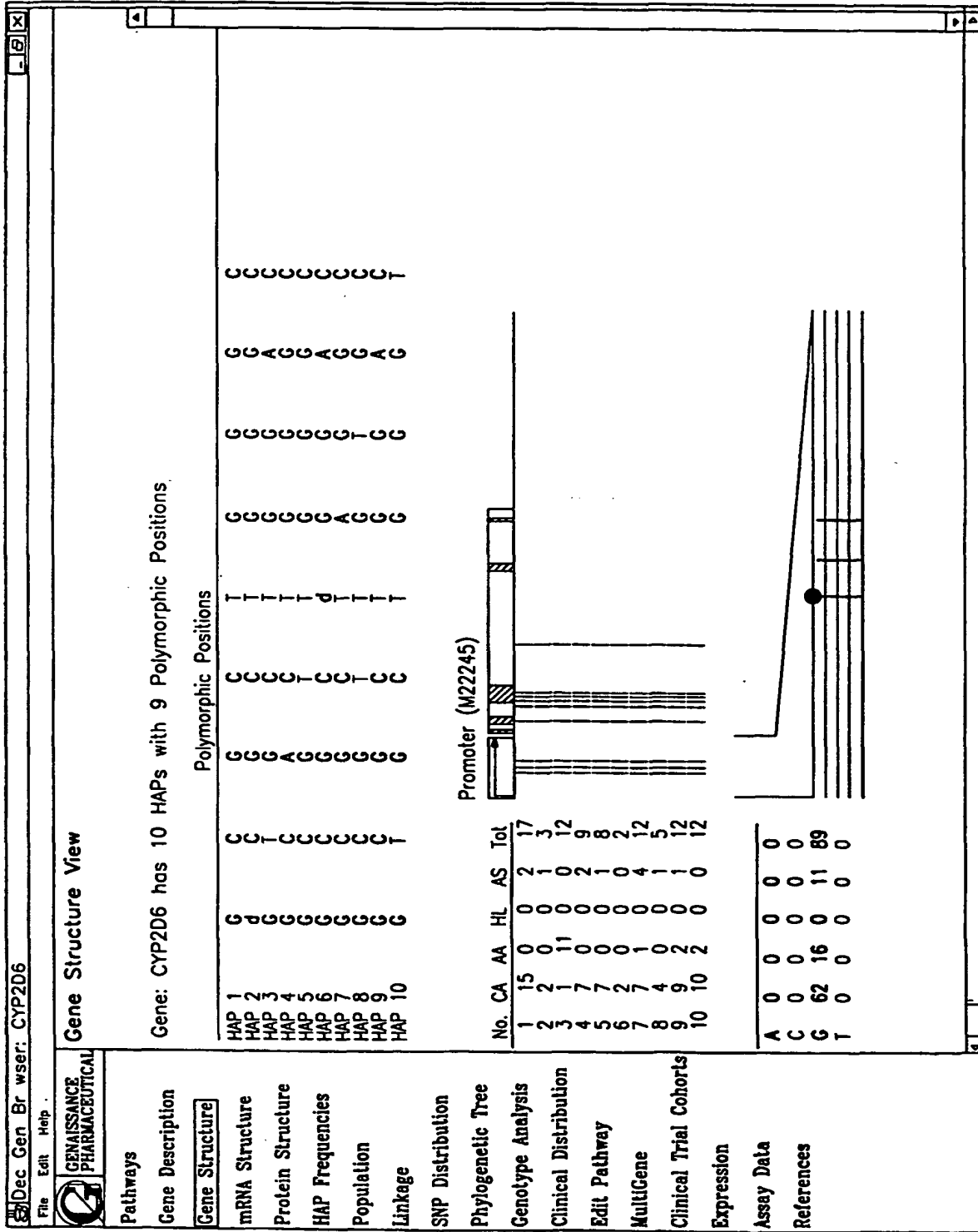
Name	CYP2D6
Definition	Human cytochrome P450 IID6 (CYP2D6) gene
Function	Metabolic enzyme
Organism	Homo Sapiens
Length	9432
No. Features	13
Population Size	46
No. Haplotypes	10
Nucleotide Polymorphism (theta)	5.6E-4 +/- 3.1E-4
Nucleotide Diversity (pi)	2.8E-4 +/- 1.8E-4

FIG. 4d



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FIG. 4b



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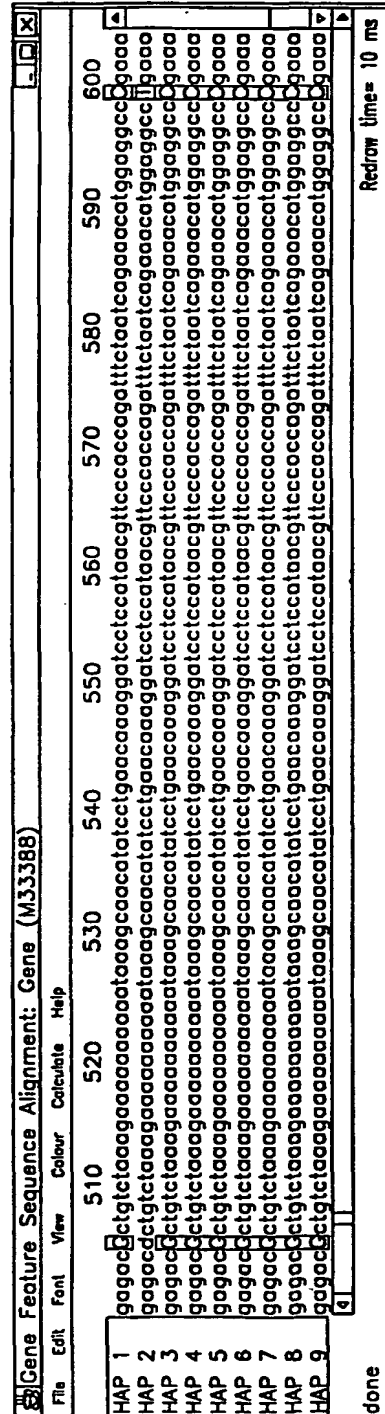
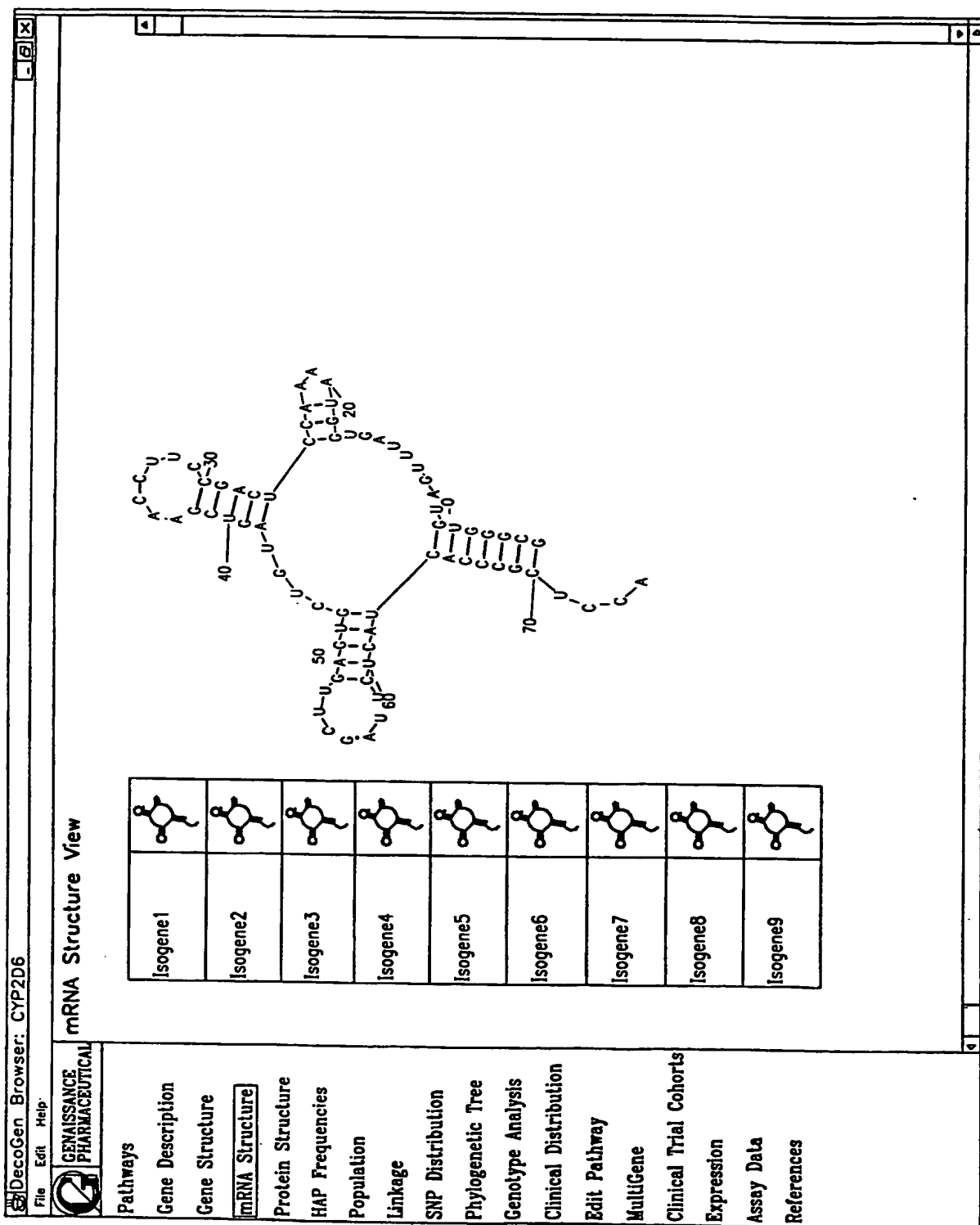


FIG. 5

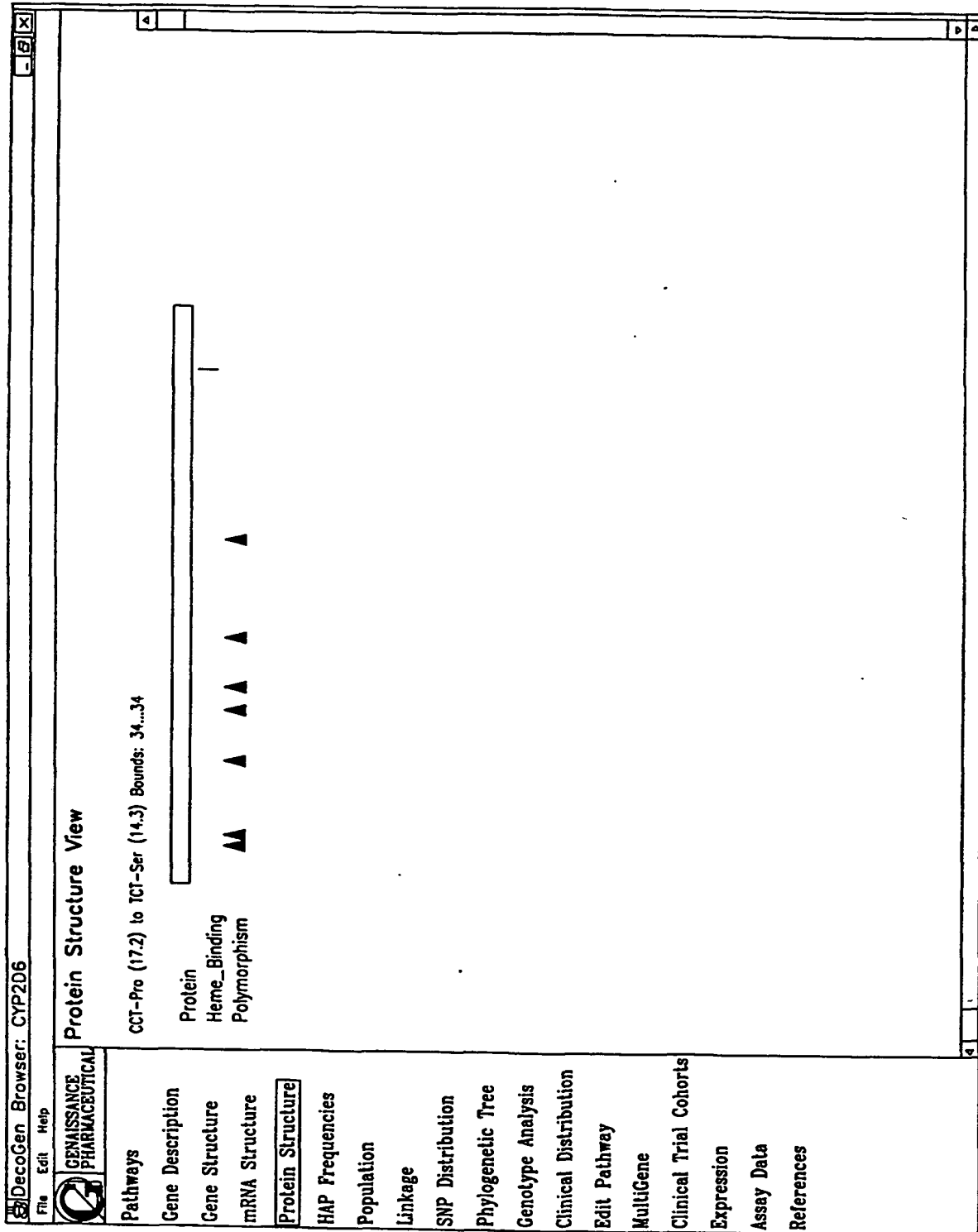
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FIG. 6



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FIG. 7



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FIG. 8

DecoGen Browser: CYP2D6									
File Edit Help									
GEMSAISSANCE PHARMACEUTICAL									
Population View									
Pathways	PID	Ethnicity	Age	Gender	HAP 1	HAP 2	Test		
Gene Description	UP070	CA	99	F	GGCTGGGC	GGCTGGGC	0.1		
Gene Structure	UP072	CA	99	F	dGGCTGGGC	GGCTGGGC	0.2		
mRNA Structure	UP074	CA	99	F	GGCTGGGC	GGCTGGGC	0.2		
Protein Structure	UP132	CA	99	M	GTGCTGGGT	GTGCTGGGT	0.3		
HAP Frequencies	UP133	CA	99	M	GGCTGGGC	GTGCTGGGT	0.2		
Population	UP134	CA	99	F	GGCTGGGC	GGCTGGGC	0.1		
Linkage	UP137	CA	99	M	GTGCTGGGT	GTGCTGGGT	0.1		
SNP Distribution	UP009	CA	99	F	GGCTGGGC	GGCTGGGC	0.1		
Phylogenetic Tree	UP014	CA	99	F	dGGCTGGGC	GGCTGGGC	0.3		
Genotype Analysis	UP020	CA	99	F	GTGCTGGGT	GTGCTGGGT	0.2		
Clinical Distribution	UP021	CA	99	M	GGCTGTGC	GGCTGGGC	0.4		
Edit Pathway	UP022	CA	99	M	GGCTGGGC	GGCTGGGC	0.3		
MultiGene	OR001	AS	99	M	dGGCTGGGC	GGCTGTGC	0.2		
Clinical Trial Cohorts	OR002	AS	99	M	GGCTGGGC	GGCTGGGC	0.3		
Expression	OR004	AS	99	F	GGCTGGGC	GGCTGGGC	0.2		
Assay Data	OR006	AS	99	F	GGCTGGGC	GGCTGGGC	0.1		
References	WT003	CA	99	F	GGCTGGGC	GGCTGTGC	0.2		
	WT005	CA	99	M	GGCTGGGC	GGCTGGGC	0.2		
	WT007	CA	99	M	GGCTGTGC	GGCTGTGC	0.4		
	UP012	CA	99	F	GGCTAGGC	GGCTGGGC	0.1		
	UP135	CA	99	M	GGCTGGGC	GGCTGGGC	0.2		

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the pamphlet!

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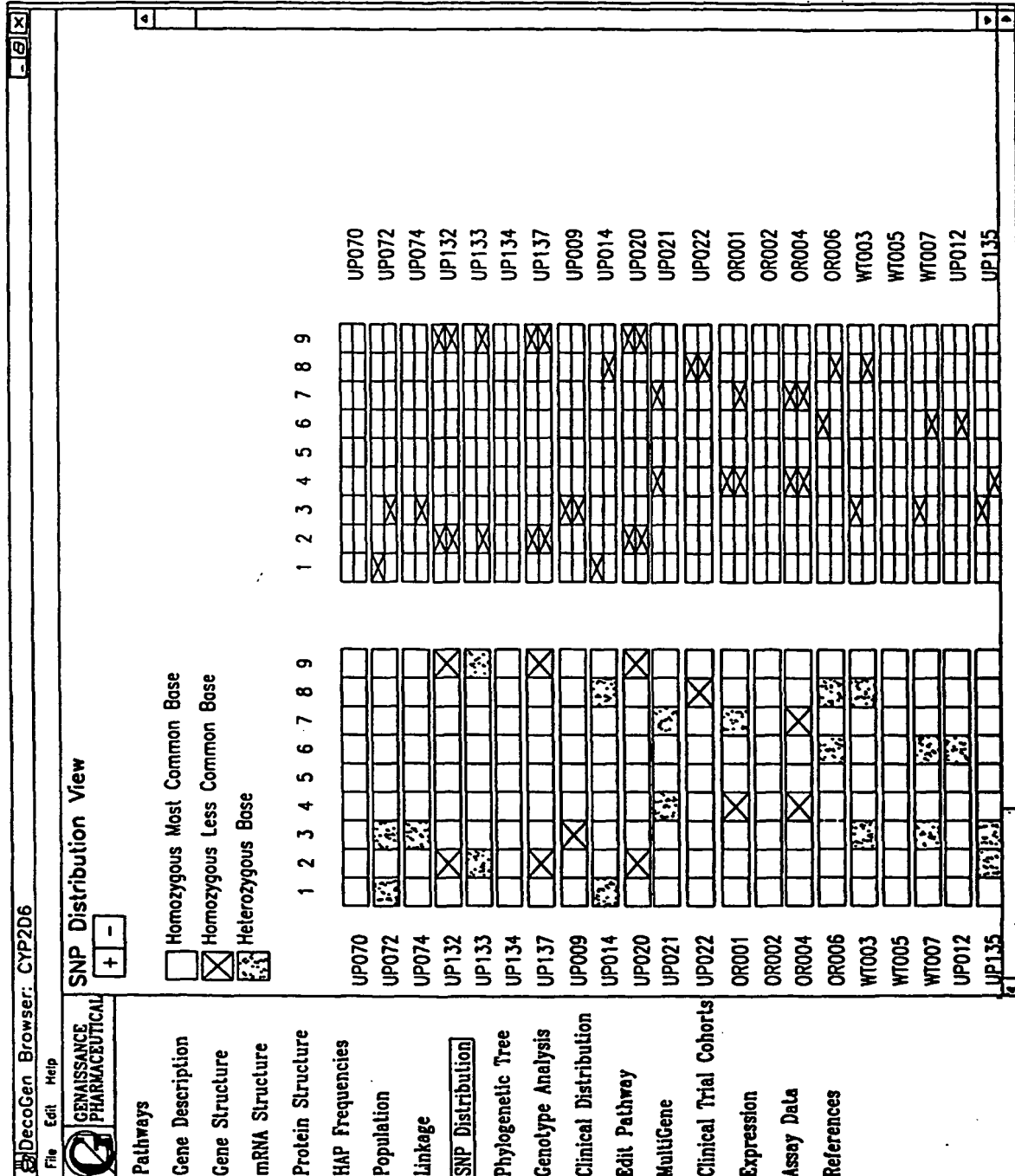
3/3

Date: 04 jan 2001

Destination: Agent

Address:

FIG. 9



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FIG. 10

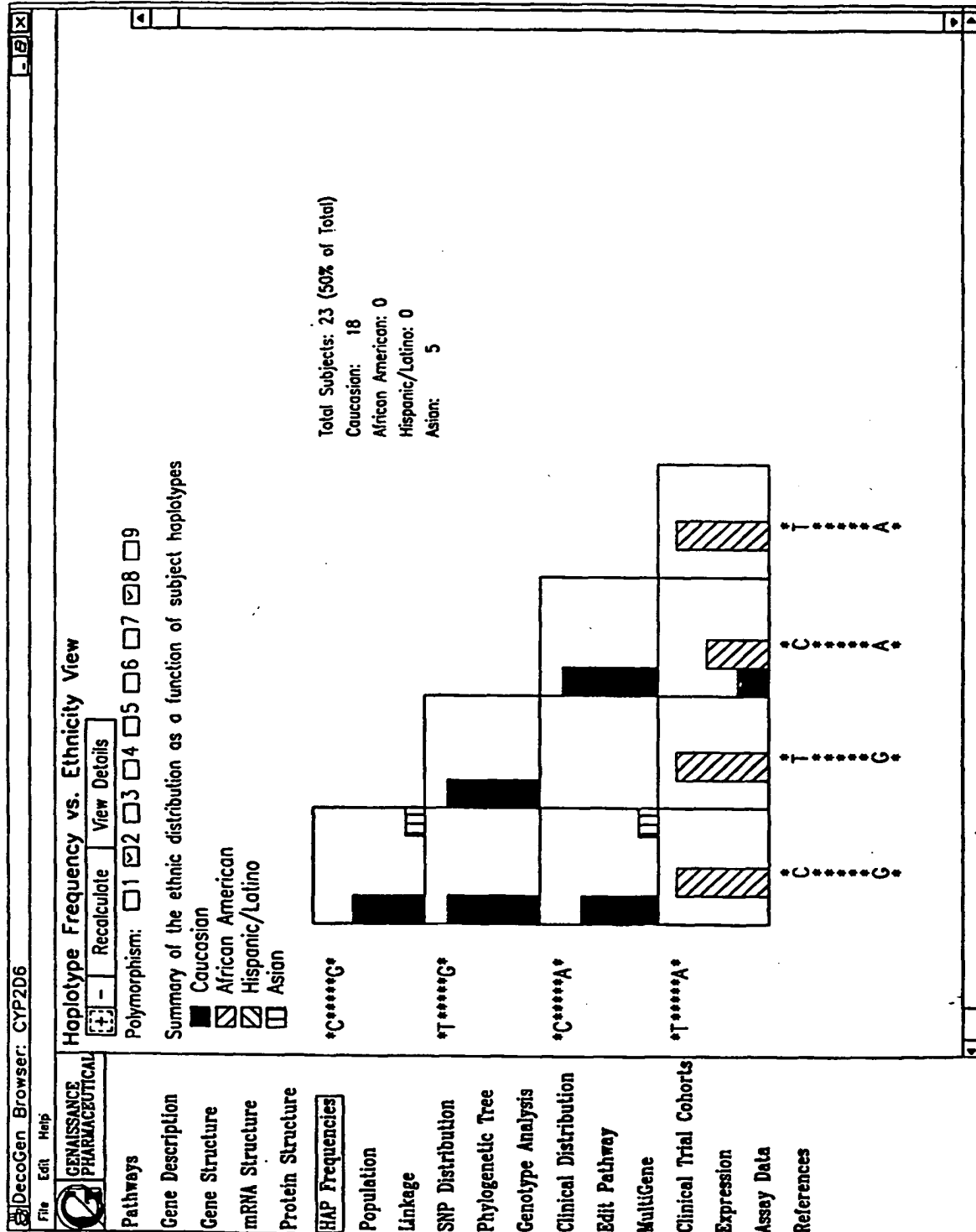
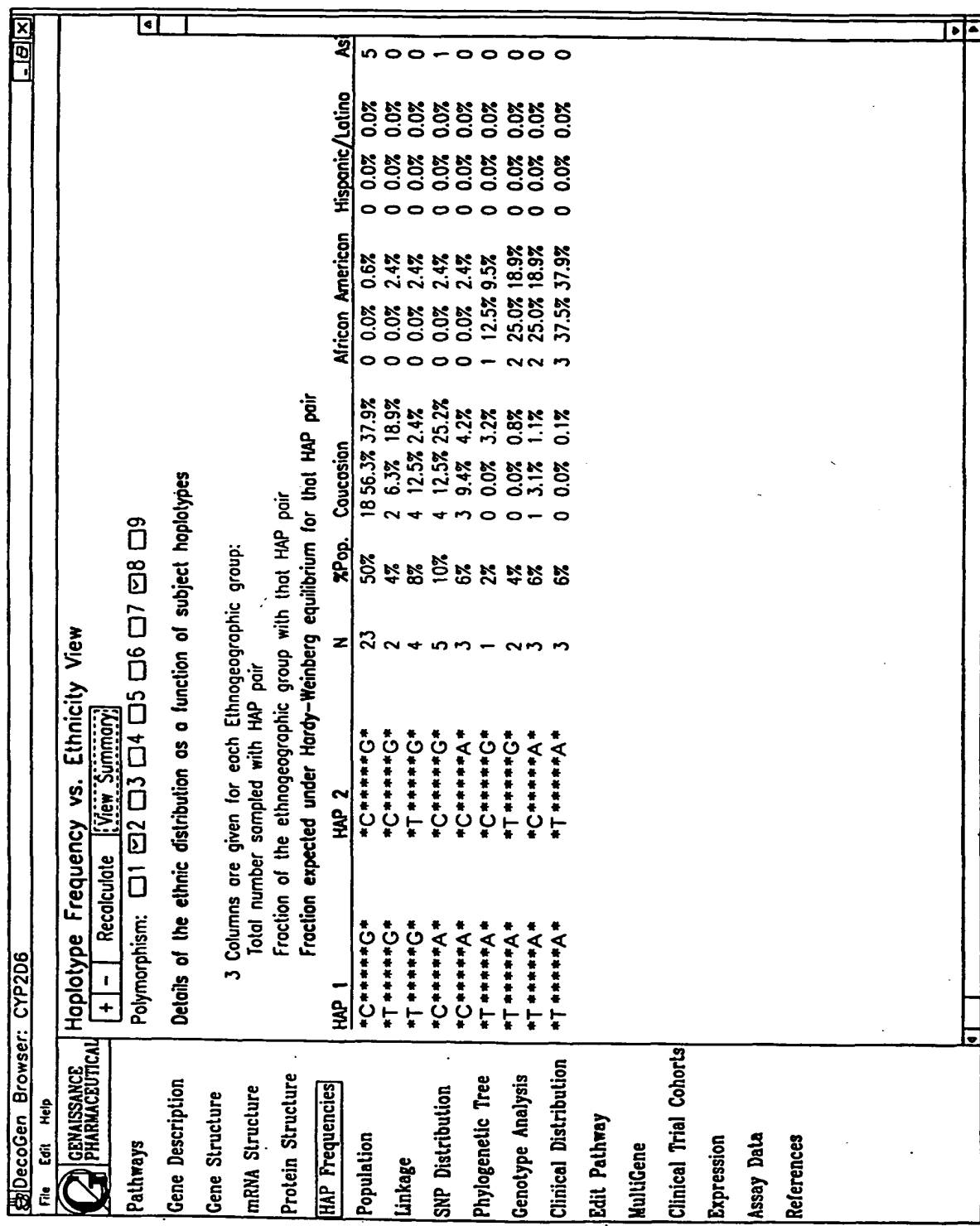
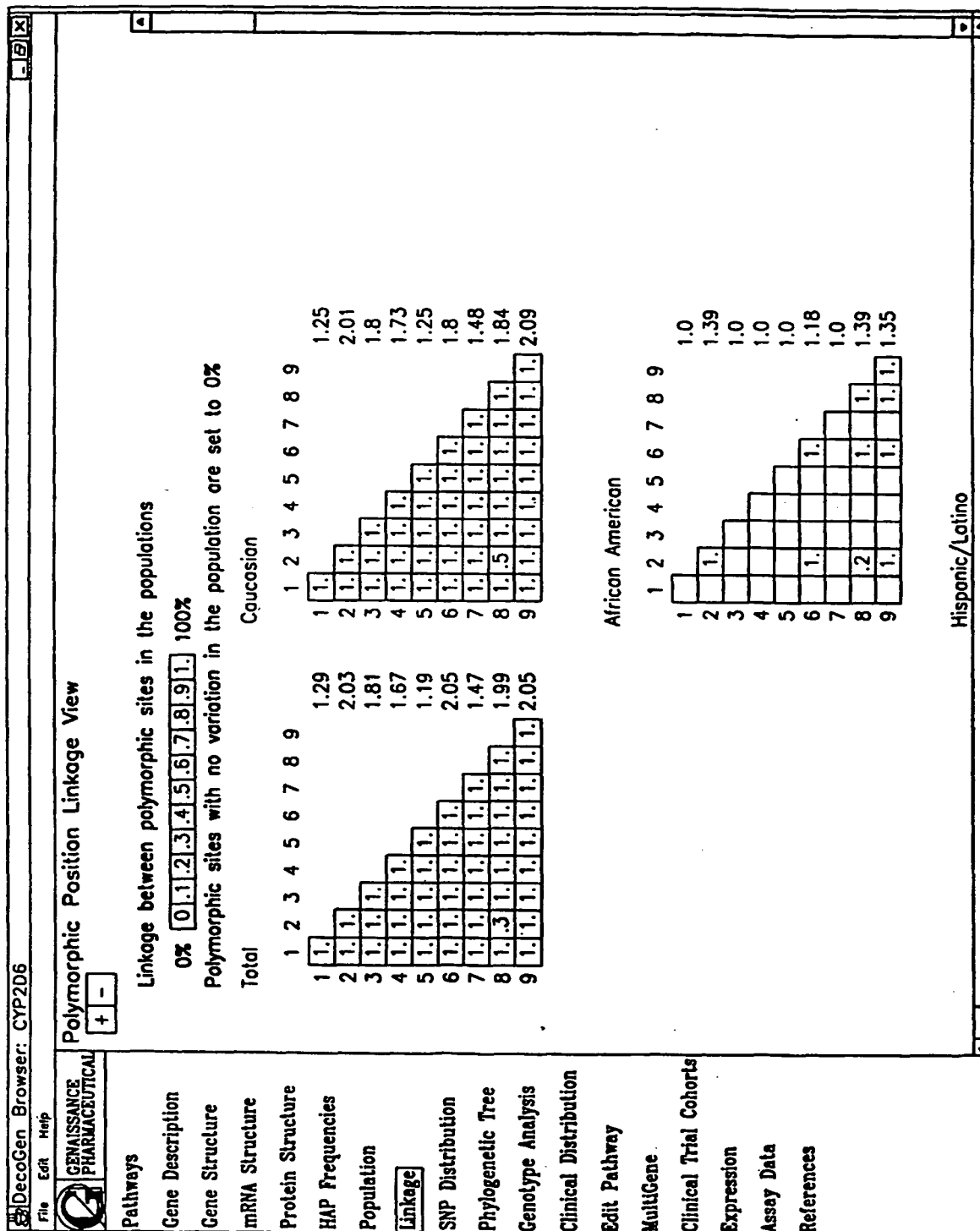


FIG. 11



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FIG. 12





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FIG. 14

Dec Gen Br wser: CYP2D6

File Edit Help

GENAISSANCE PHARMACEUTICAL

Genotype Analysis View

+ - Recalculate View Optimized

Polymorphism: ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☒ 8 ☐ 9

Genotype Loci: ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☒ 8 ☐ 9

I(HAP): 1.0 1.56 1.0 1.0 1.0 1.0 1.0 1.0 1.6 1.0

HAP 1	HAP 2	N	%Pop.	Positive
*C*****G*	*C*****G*	23	50%	100%
*T*****G*	*C*****G*	2	4%	100%
*T*****G*	*T*****G*	4	8%	100%
*C*****A*	*C*****G*	5	10%	100%
*C*****A*	*C*****A*	3	6%	100%
*T*****A*	*C*****G*	1	2%	100%
*T*****A*	*T*****G*	2	4%	100%
*T*****A*	*C*****A*	3	5%	100%
*T*****A*	*T*****A*	3	5%	100%

Pathways

Gene Description

Gene Structure

mRNA Structure

Protein Structure

HAP Frequencies

Population

Linkage

SNP Distribution

Phylogenetic Tree

Genotype Analysis

Clinical Distribution

Edit Pathway

MultiGene

Clinical Trial Cohorts

Expression

Assay Data

References

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FIG. 15

DecoGen Browser: CYP2D6

File Edit Help

GENAISANCE PHARMACEUTICAL

Pathways

Gene Description

Gene Structure

mRNA Structure

Protein Structure

HAP Frequencies

Population

Linkage

SNP Distribution

Phylogenetic Tree

Genotype Analysis

Clinical Distribution

Edit Pathway

MultGene

Clinical Trial Cohorts

Expression

Assay Data

References

Genotype Analysis View

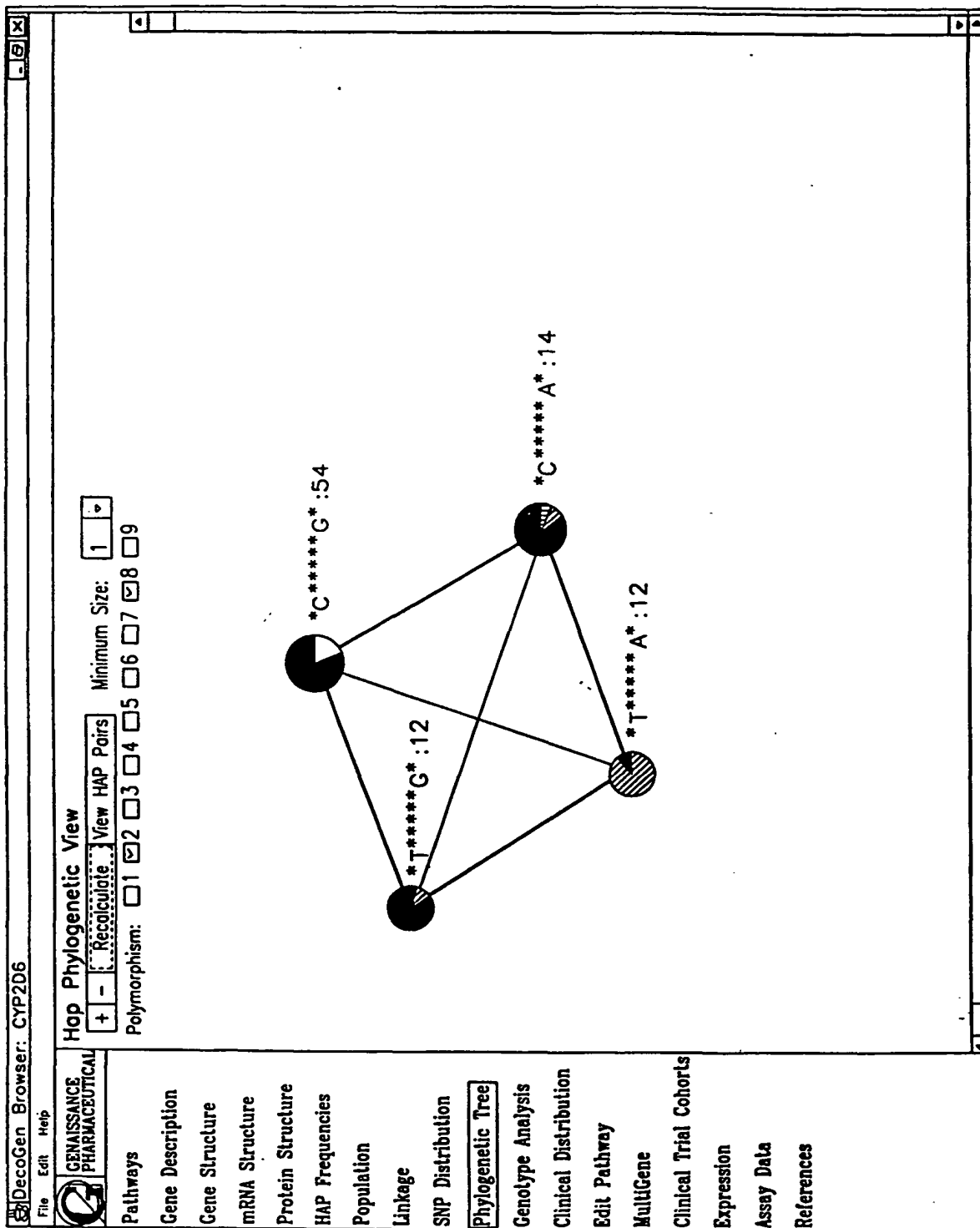
+ - Recalculate View Optimized

Polymorphism: ☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☒ 8 ☐ 9

[(HAP): 1.0 1.56 1.0 1.0 1.0 1.0 1.0 1.0 1.6 1.0 1.0

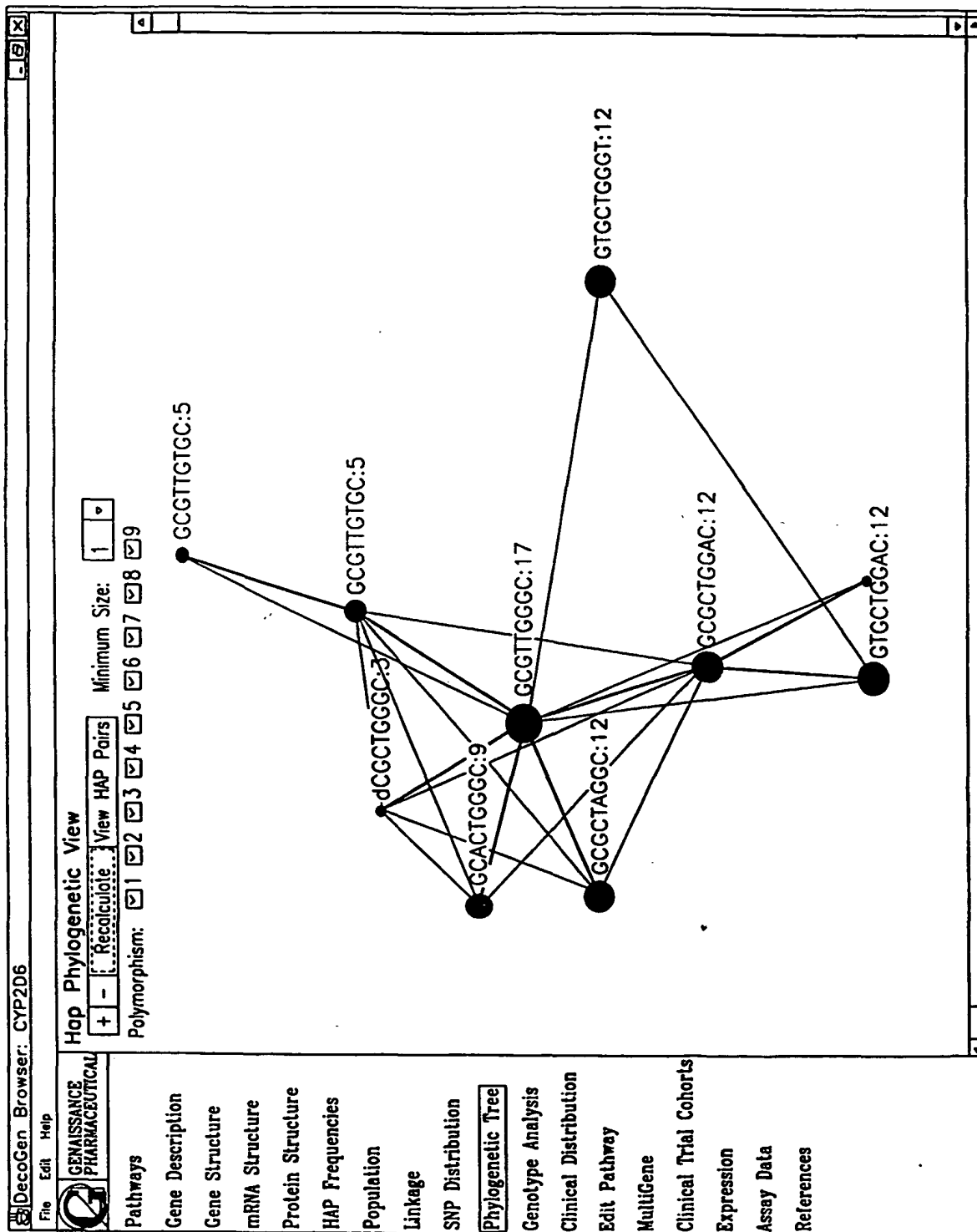
HAP 1	HAP 2	Positive	Mosk
*C*****G*	*C*****G*	100%	<input type="checkbox"/>
*T*****G*	*C*****G*	100%	<input type="checkbox"/>
*T*****G*	*T*****G*	100%	<input type="checkbox"/>
*C*****A*	*C*****G*	100%	<input type="checkbox"/>
*C*****A*	*C*****A*	100%	<input type="checkbox"/>
*T*****A*	*C*****G*	100%	<input type="checkbox"/>
*T*****A*	*T*****G*	100%	<input type="checkbox"/>
*T*****A*	*C*****A*	100%	<input type="checkbox"/>
*T*****A*	*T*****A*	100%	<input type="checkbox"/>

FIG. 16



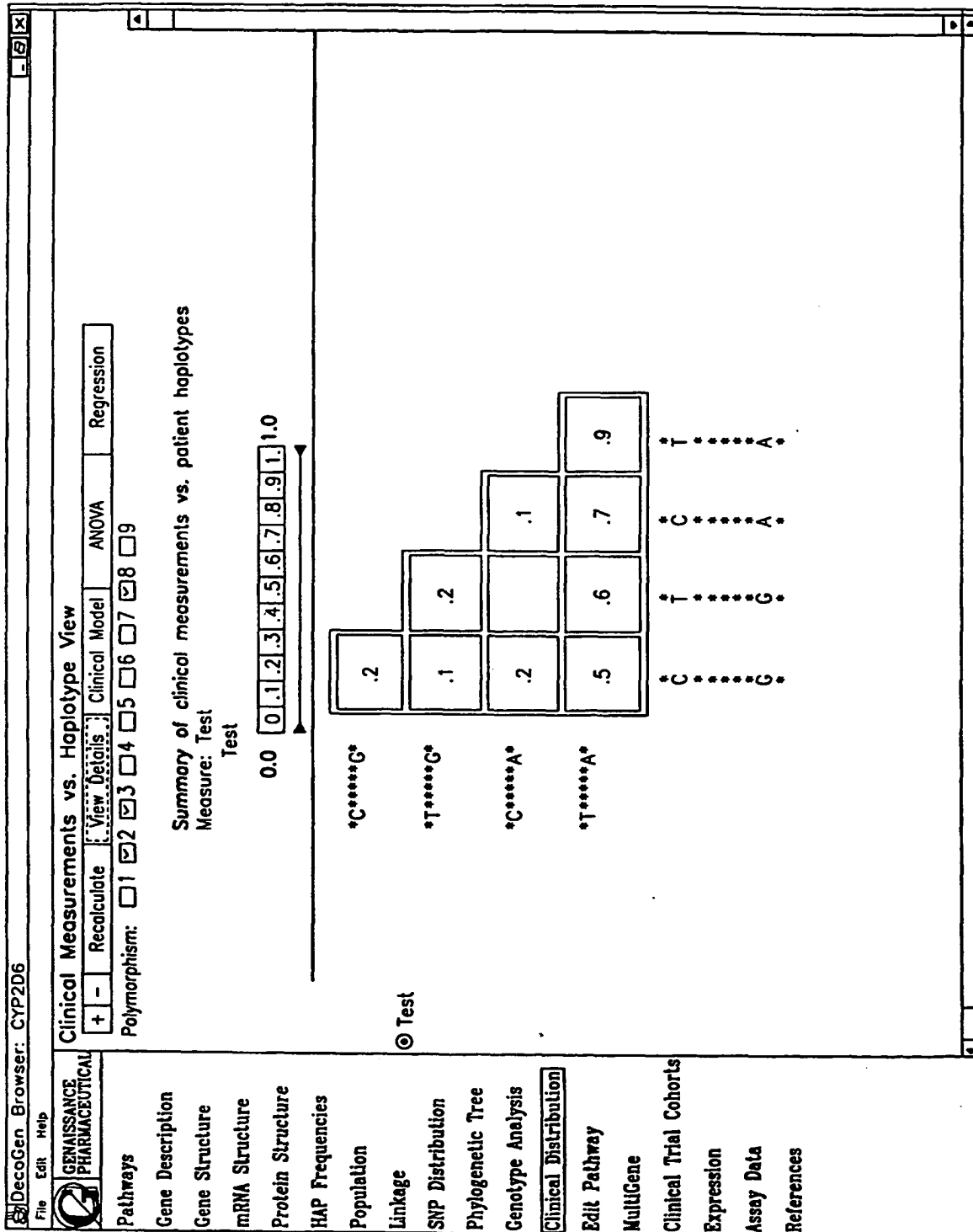
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FIG. 17

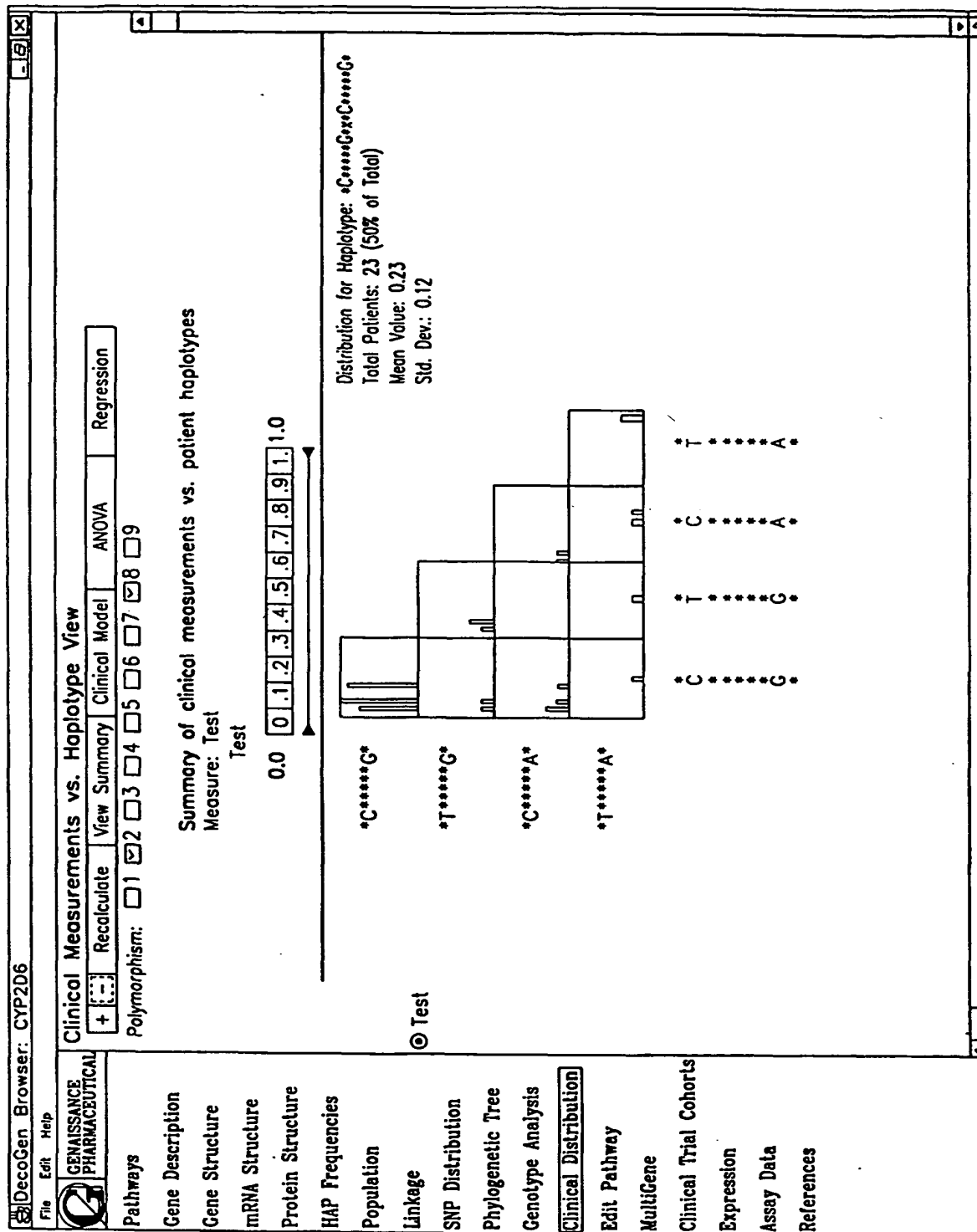


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FIG. 18



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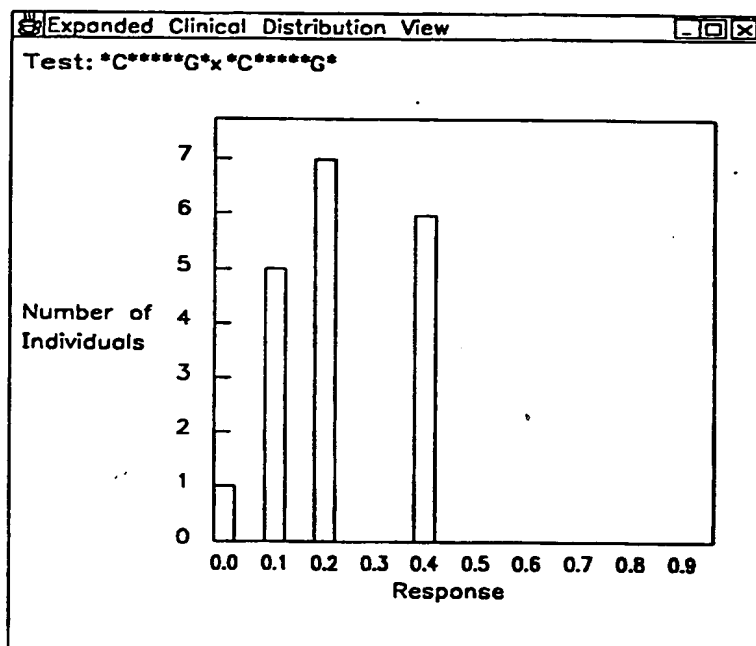
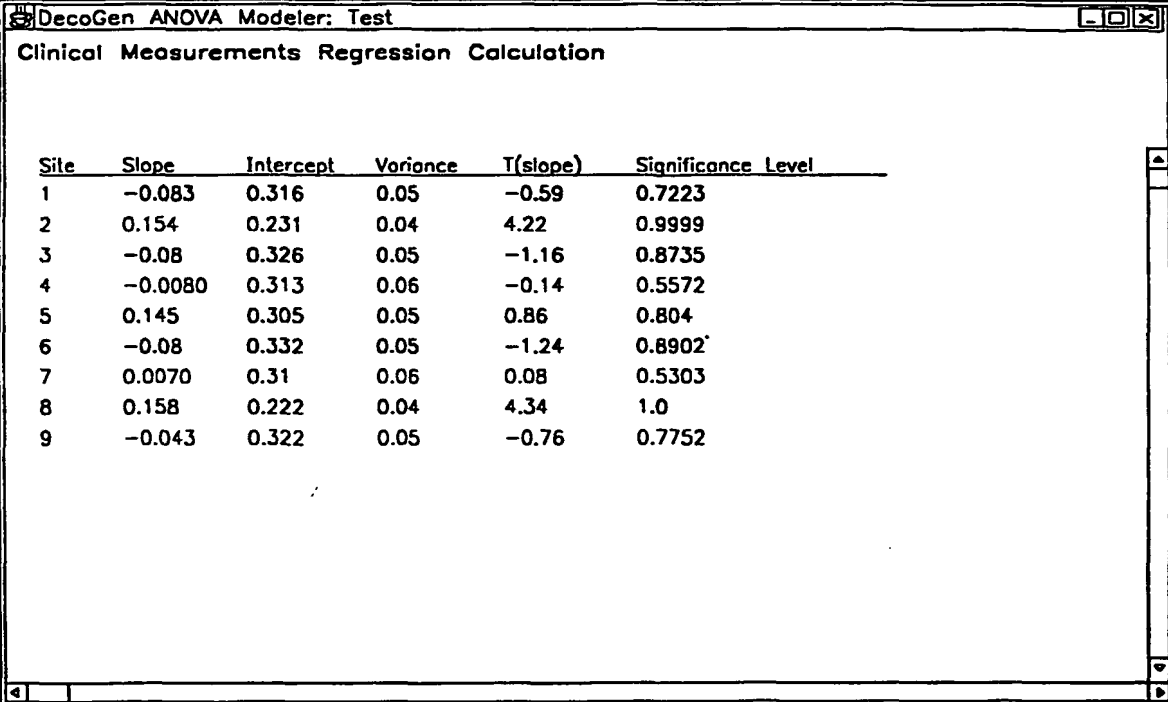


FIG. 20

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DecoGen ANOVA Modeler: Test

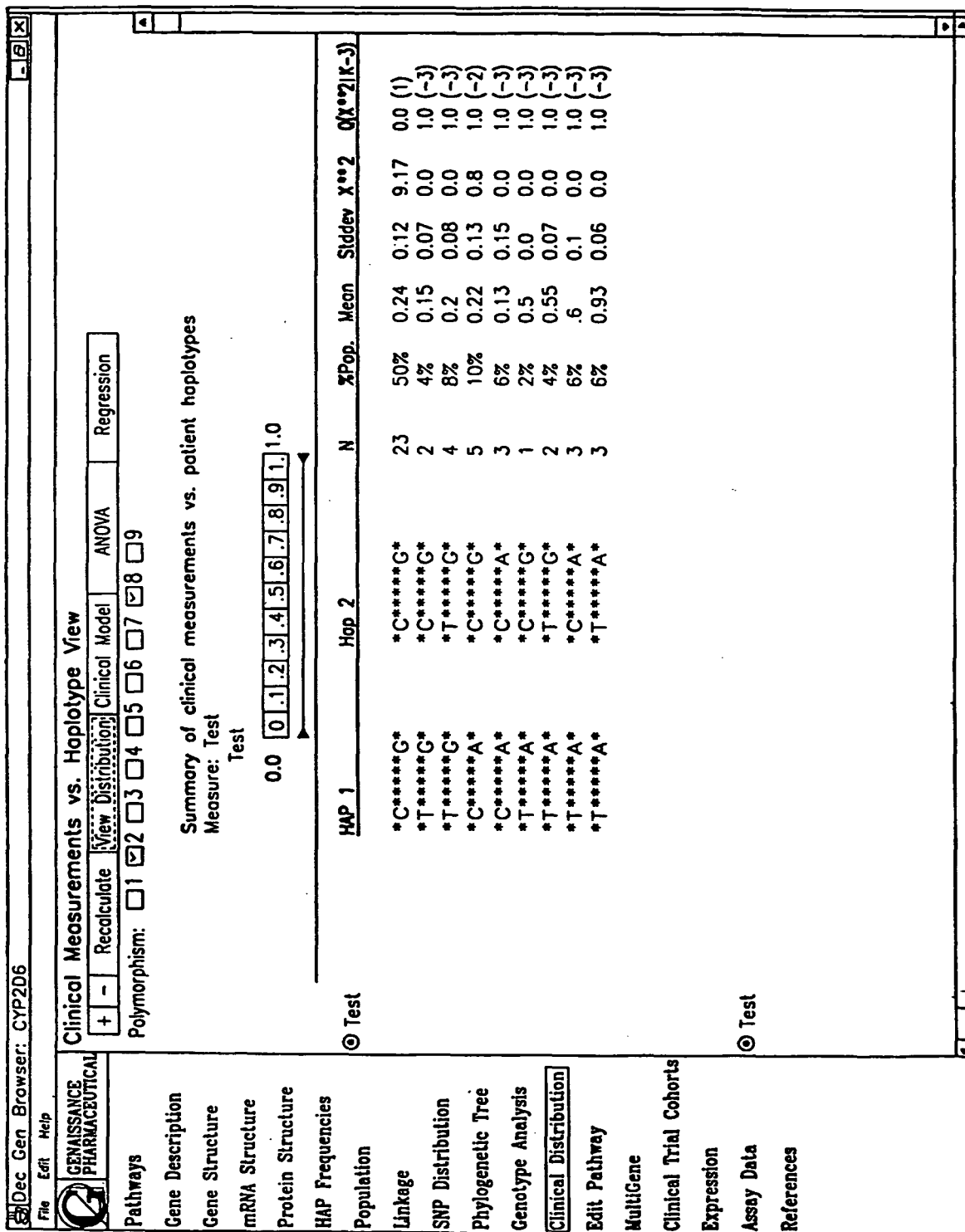
Clinical Measurements Regression Calculation

Site	Slope	Intercept	Variance	T(slope)	Significance Level
1	-0.083	0.316	0.05	-0.59	0.7223
2	0.154	0.231	0.04	4.22	0.9999
3	-0.08	0.326	0.05	-1.16	0.8735
4	-0.0080	0.313	0.06	-0.14	0.5572
5	0.145	0.305	0.05	0.86	0.804
6	-0.08	0.332	0.05	-1.24	0.8902
7	0.0070	0.31	0.06	0.08	0.5303
8	0.158	0.222	0.04	4.34	1.0
9	-0.043	0.322	0.05	-0.76	0.7752

FIG. 21

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FIG. 22



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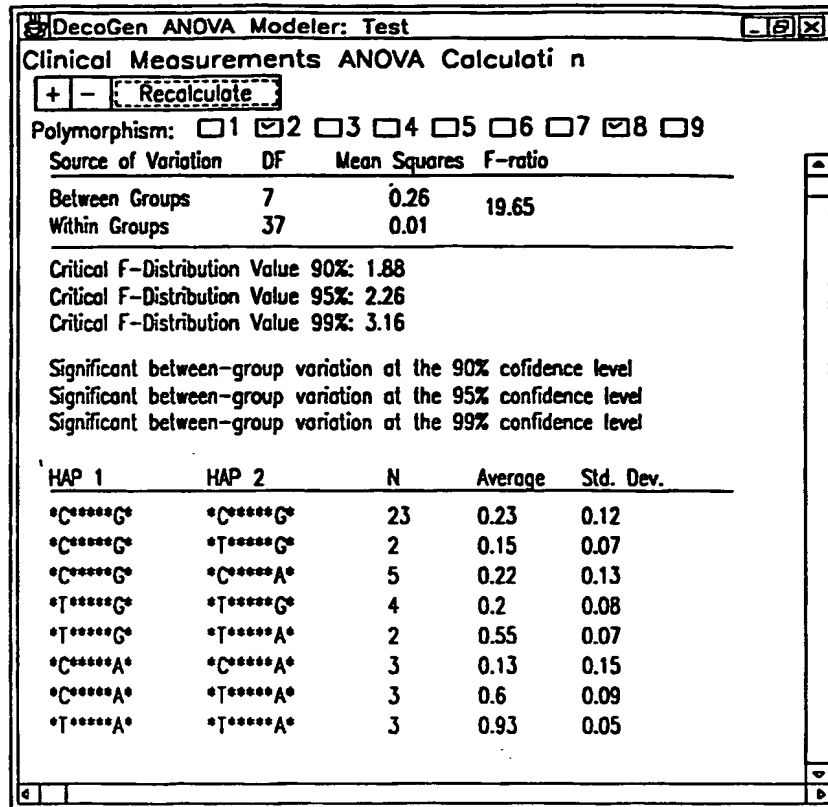


FIG. 23

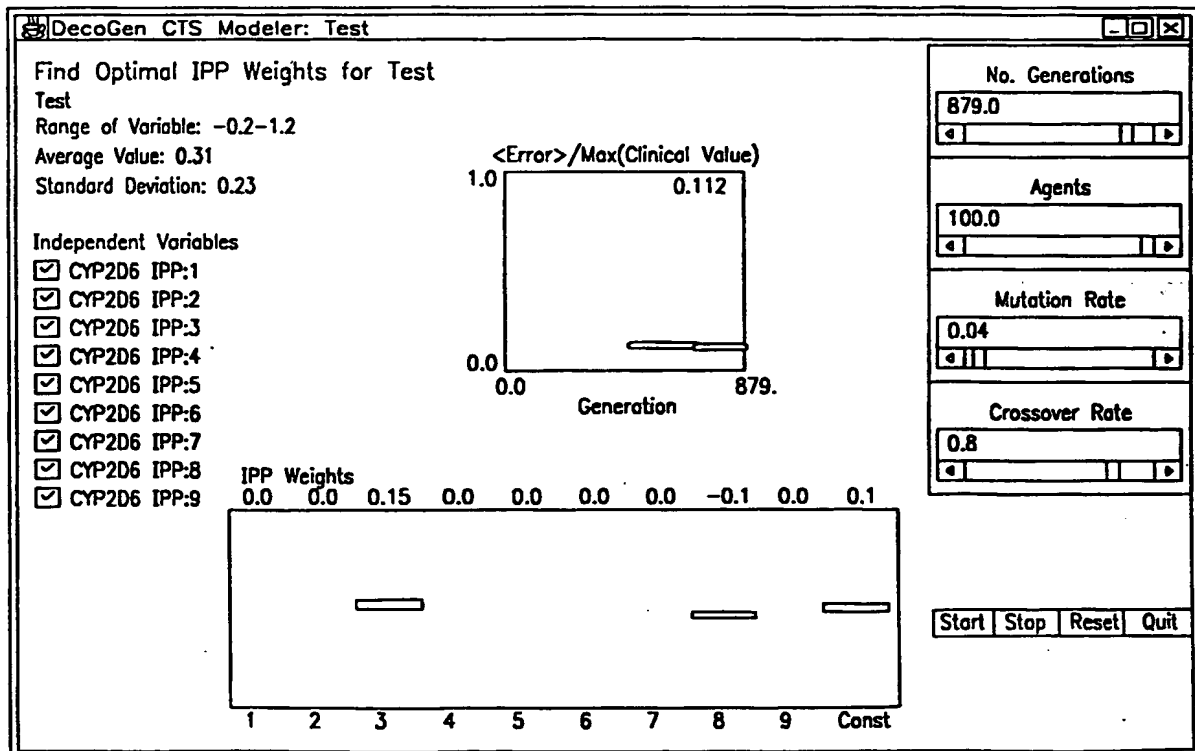


FIG. 24

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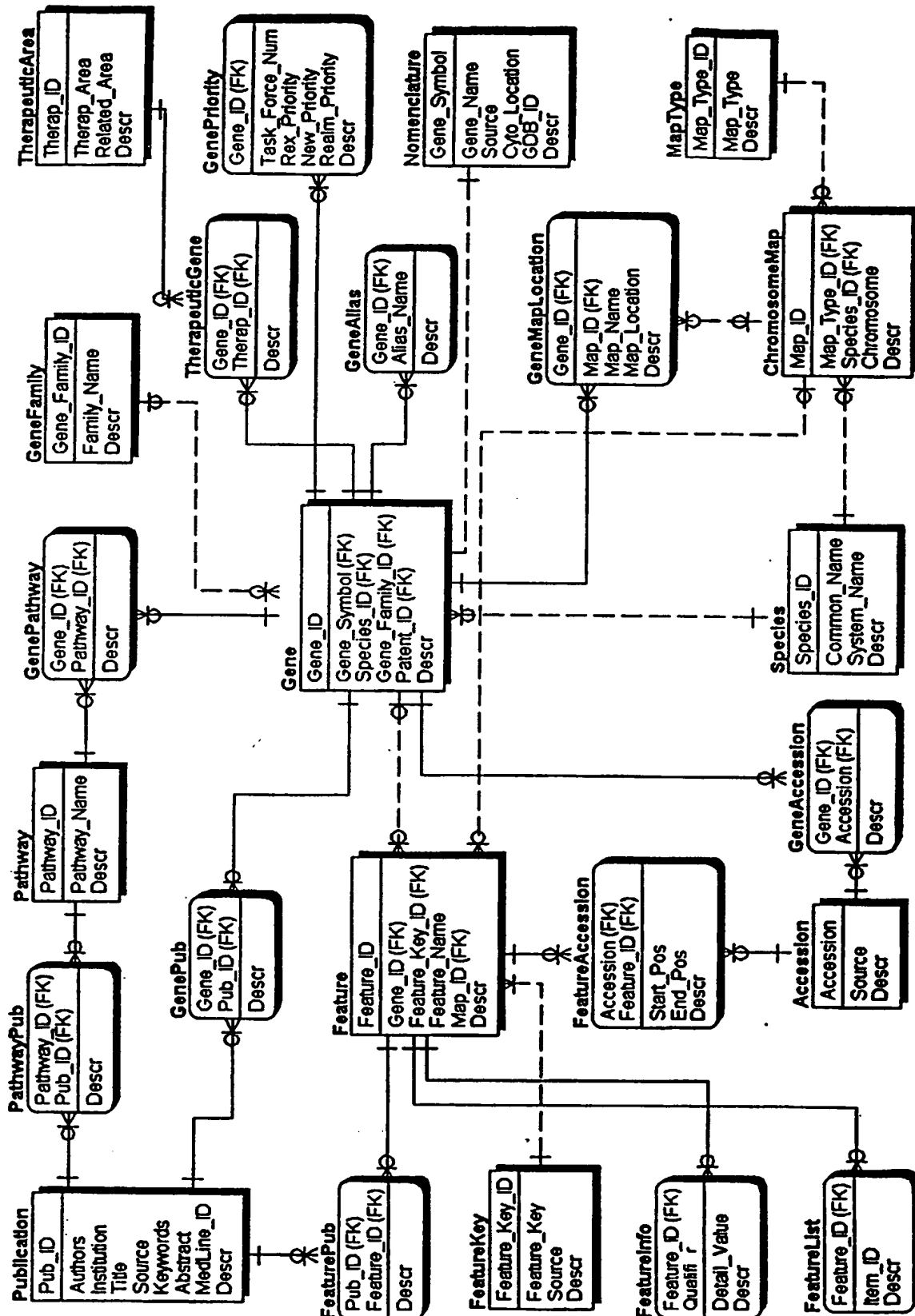
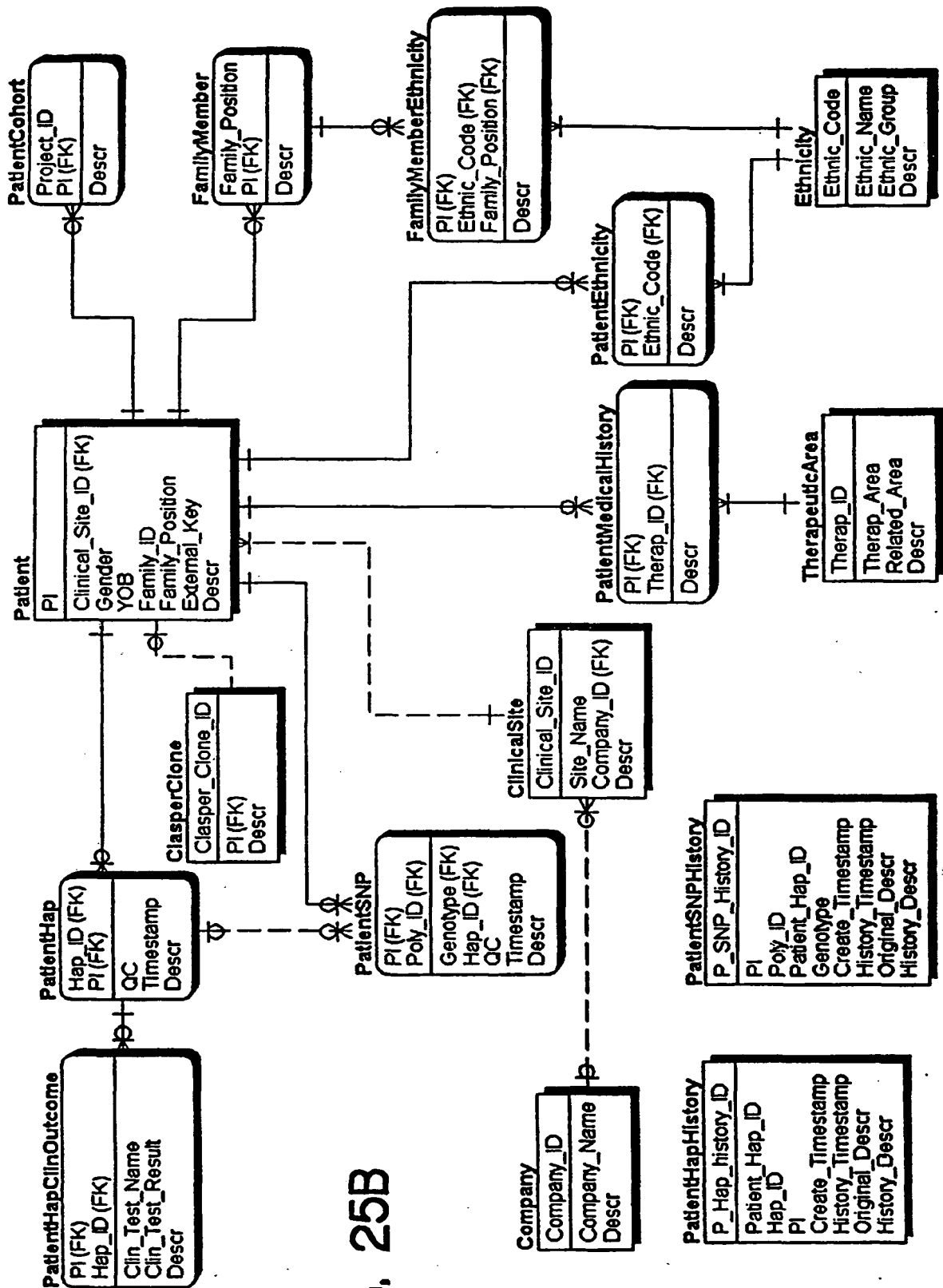


FIG. 25A



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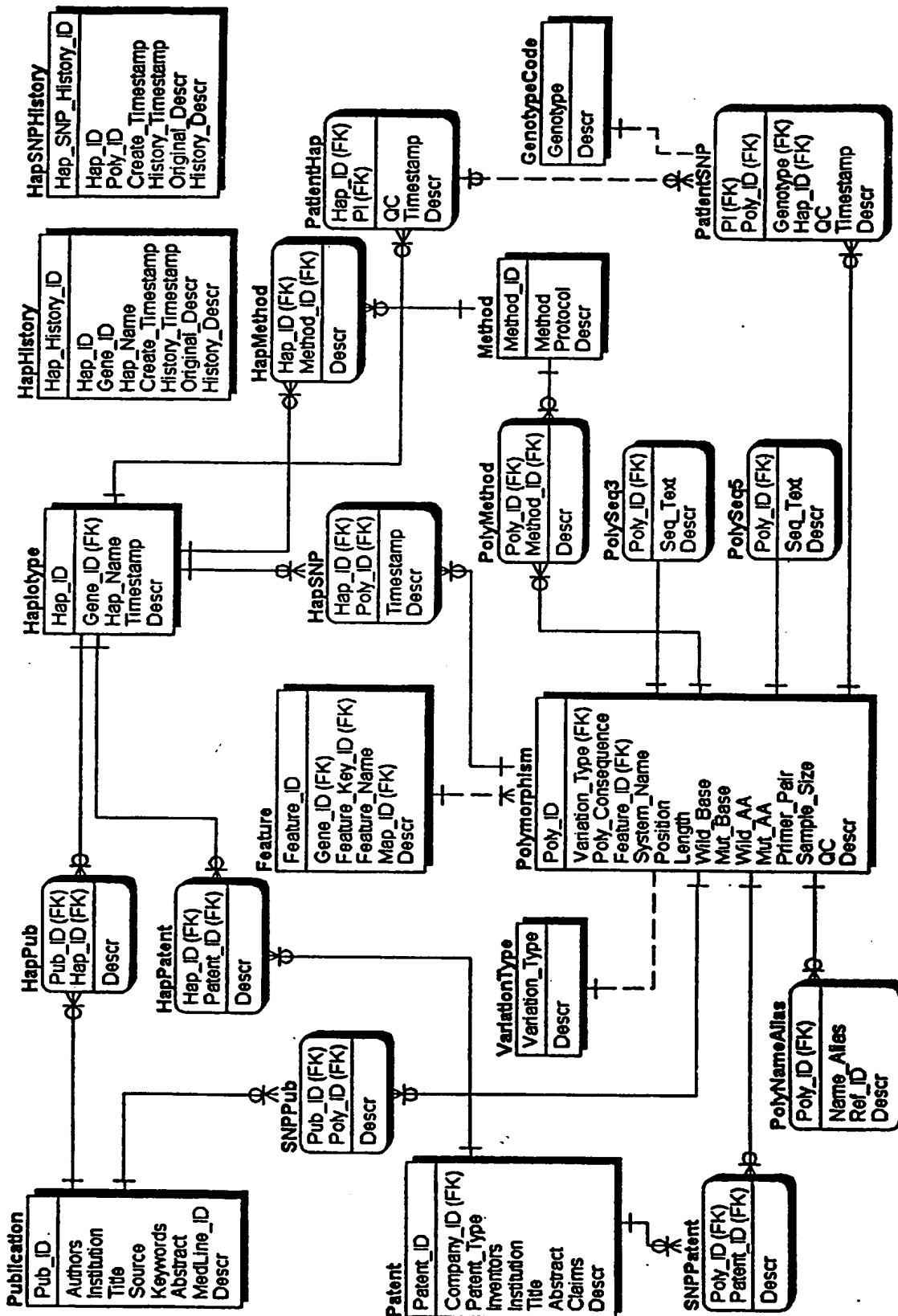


FIG. 25C

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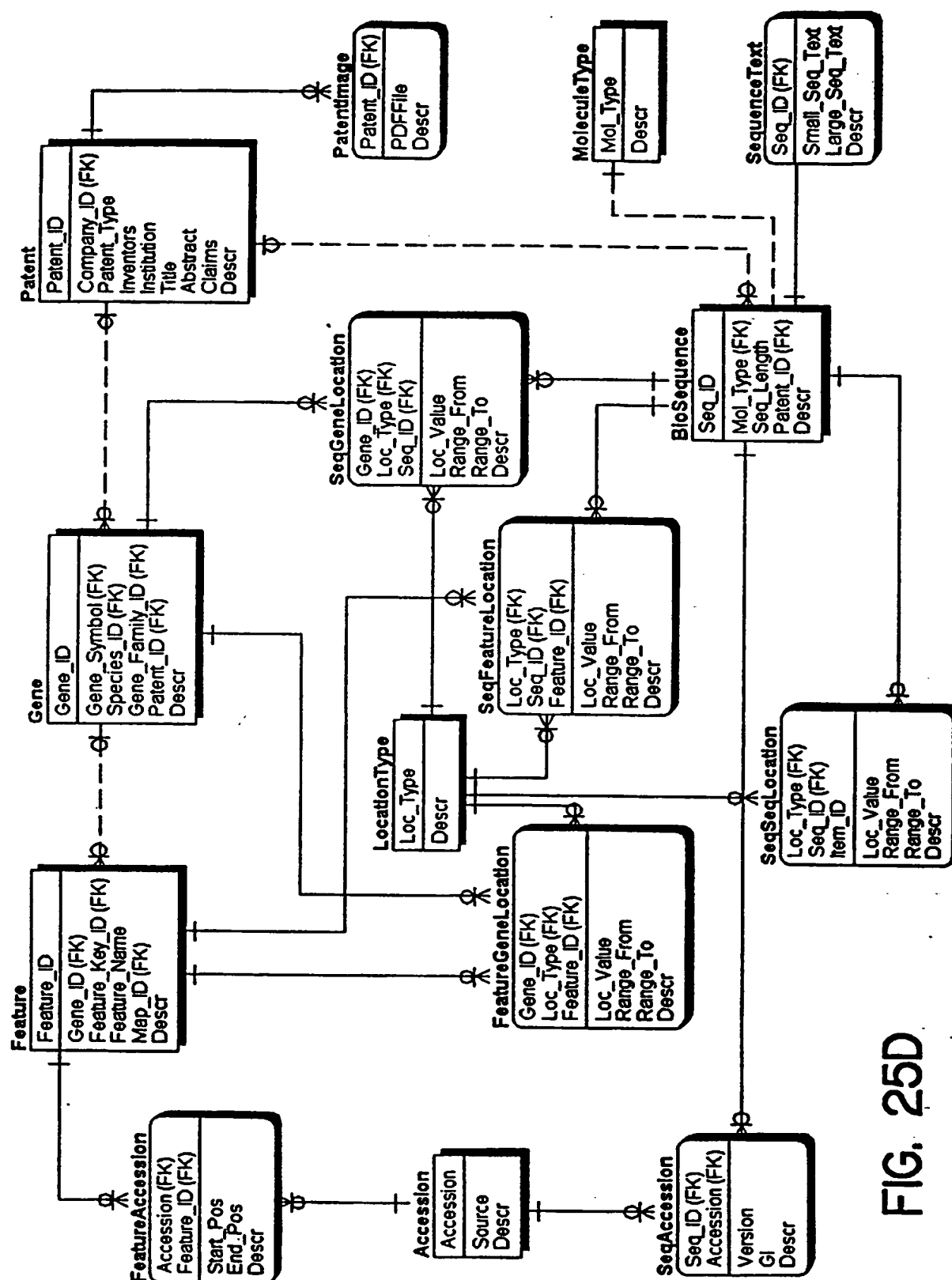


FIG. 25D

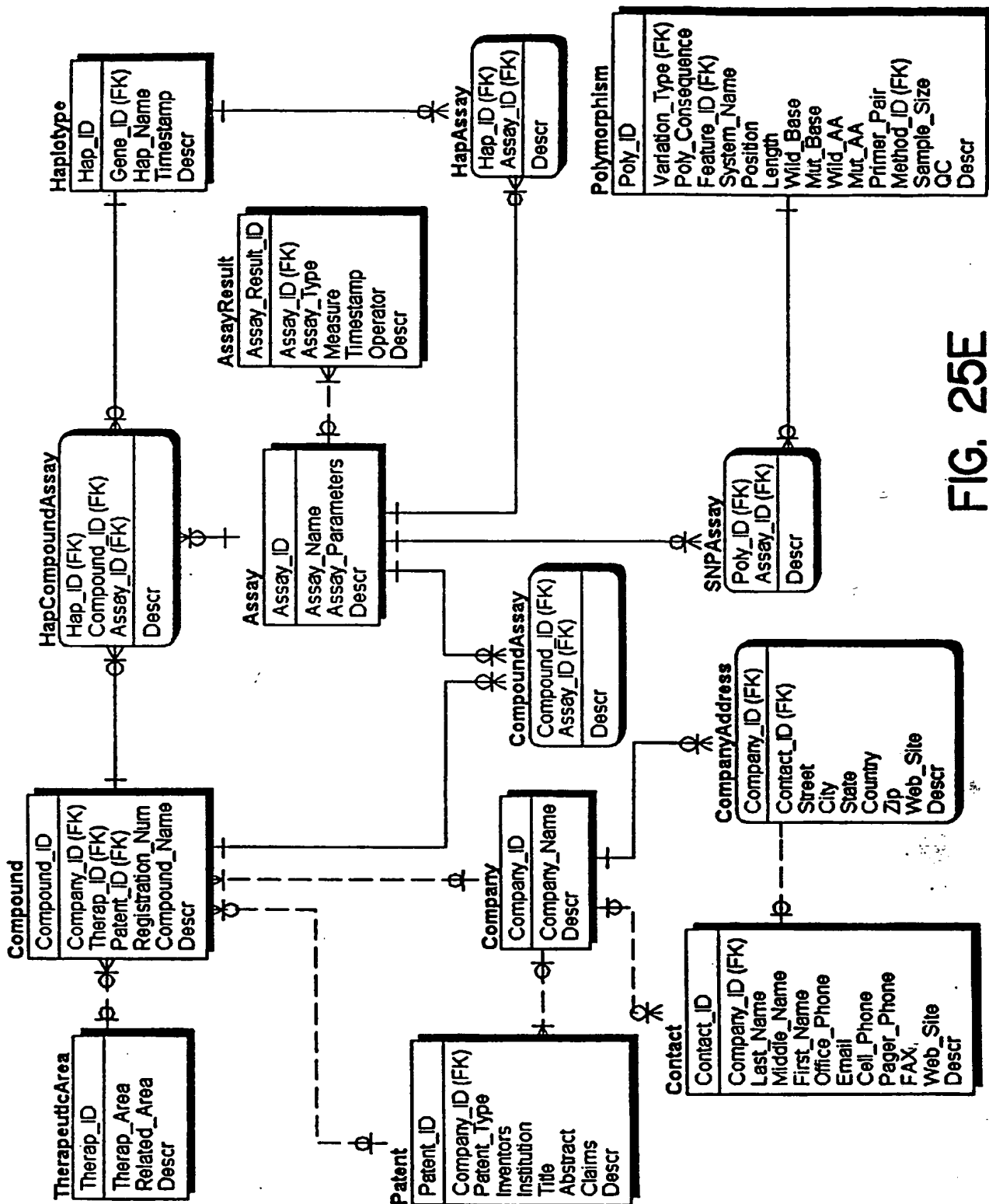
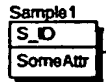


FIG. 25E

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Legend of Figures:

Rectangle Boxes: Tables in the database.



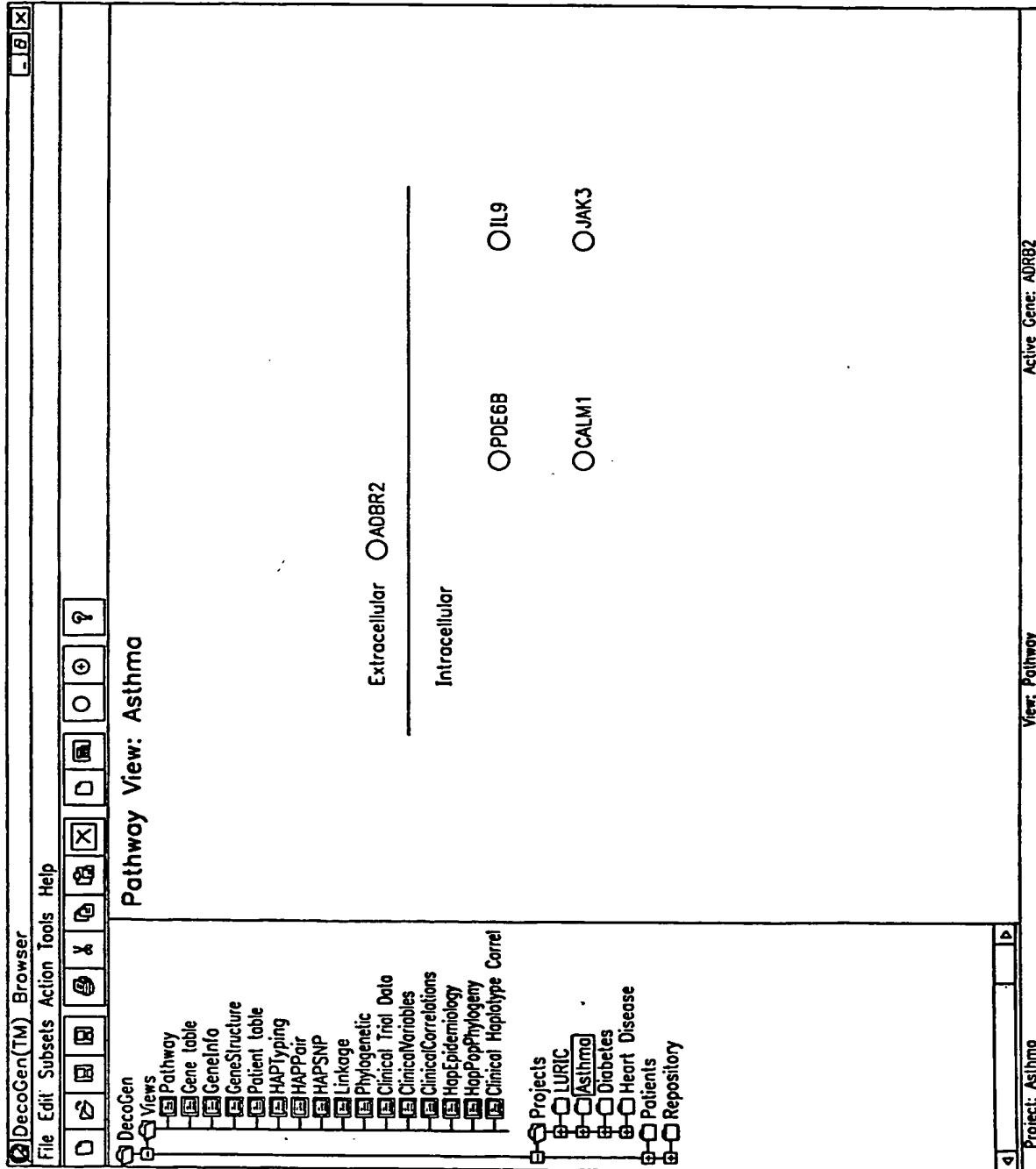
Rounded Boxes: Children tables that depend on their parent tables. This dependency requires that a parent record to be in existence before a child record can be created.

- 2: ————⌘ Identifying parent / child relationship. It depicts the not nullable 1-to-0-or-many relationship.
- 4: ————⌘ Non-identifying parent / child relationship. It represents the nullable 0-or-1-to-many relationship.
- 6: ————⌘ Identifying parent / child relationship. It depicts the not nullable 1-to-1-or-many relationship.
- 8: - - - -⌘ Non-identifying parent / child relationship. It represents the not nullable 1-to-1-or-many relationship.
- 10: |——— Identifying parent / child relationship. It depicts the not nullable 1-to-exact-1 relationship.
- 12: ⌘ ——— Non-identifying parent / child relationship. It represents the nullable 0-or-1-to-exact-1 relationship.
- 14: |———⌘ Non-identifying parent / child relationship. It represents the not nullable 0-or-1-to-many relationship.

FIG. 25F

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FIG. 26



SUBSTITUTE SHEET (RULE 26)

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FIG. 28A

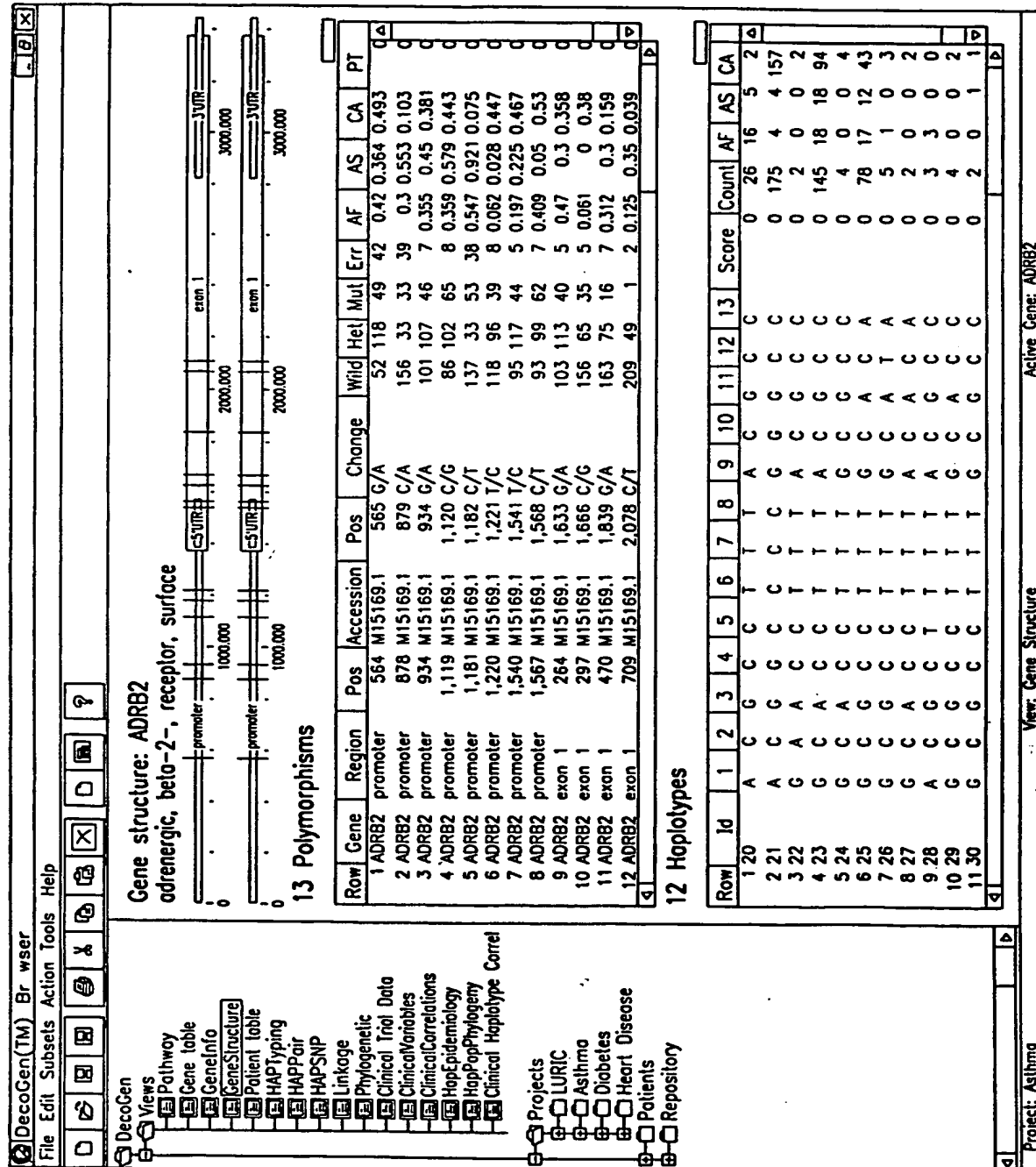
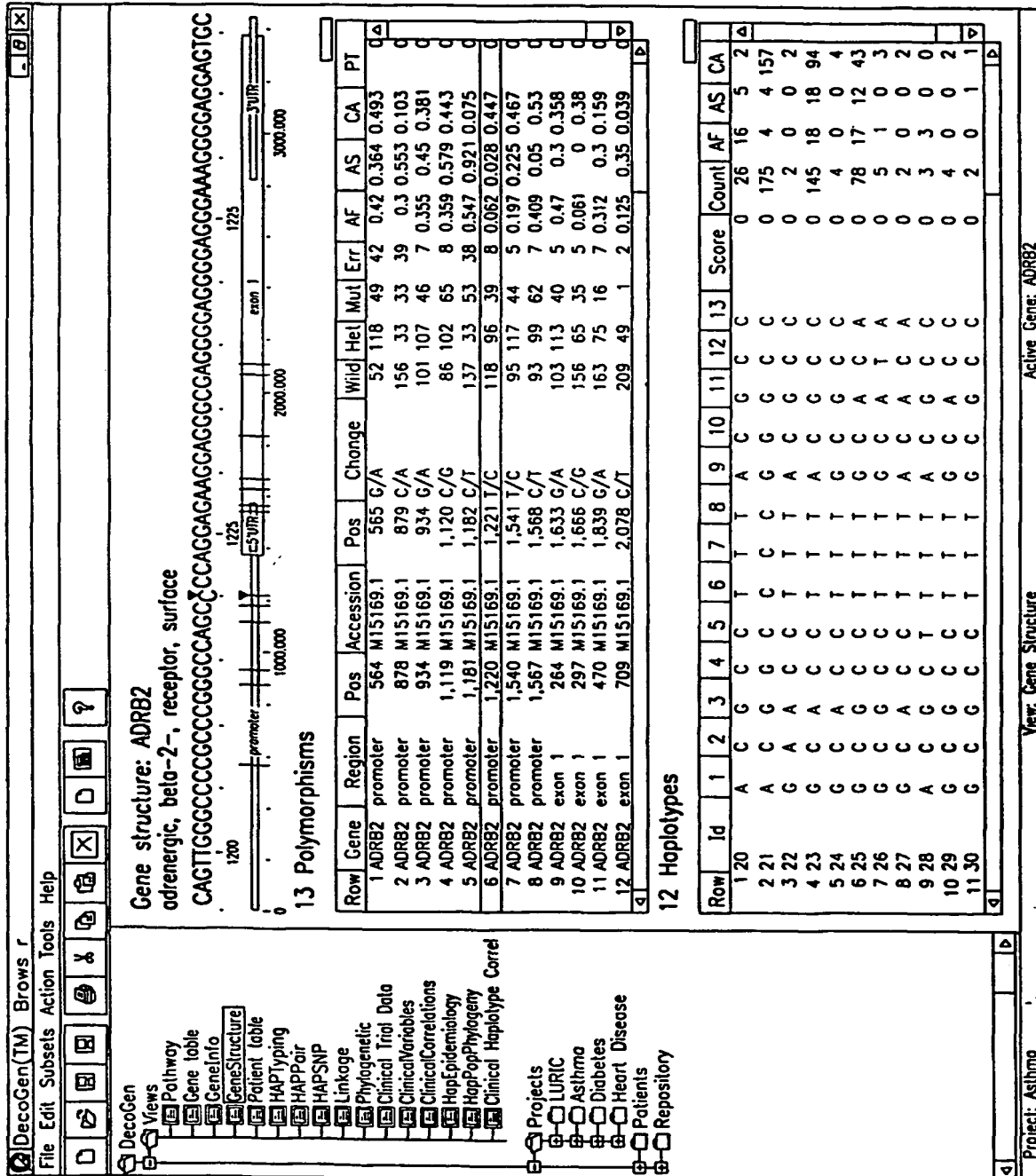


FIG. 28B



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FIG. 29A

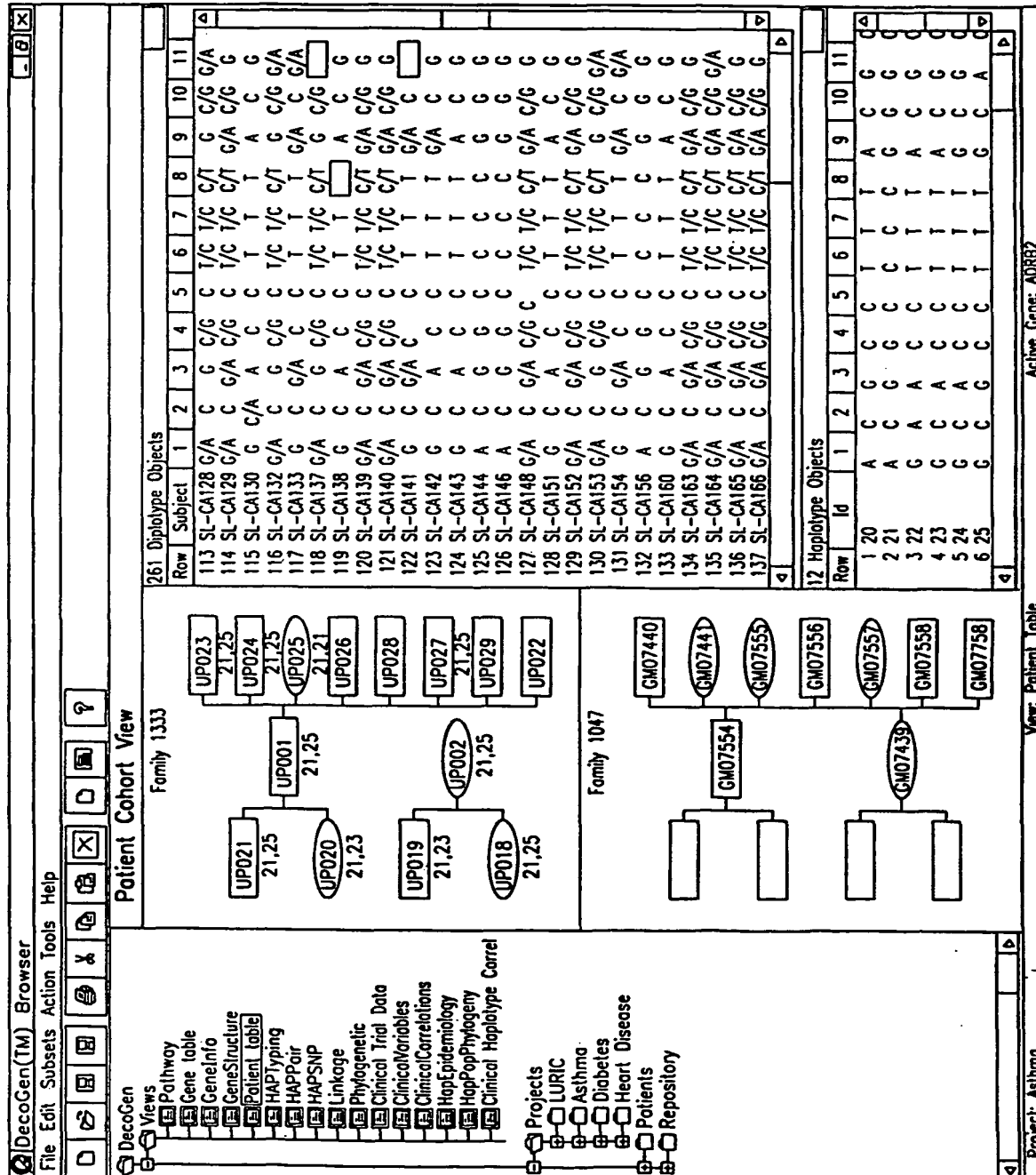


FIG. 29B

DecoGen(TM) Browser

File Edit Subsets Action Tools Help

FIG. 30

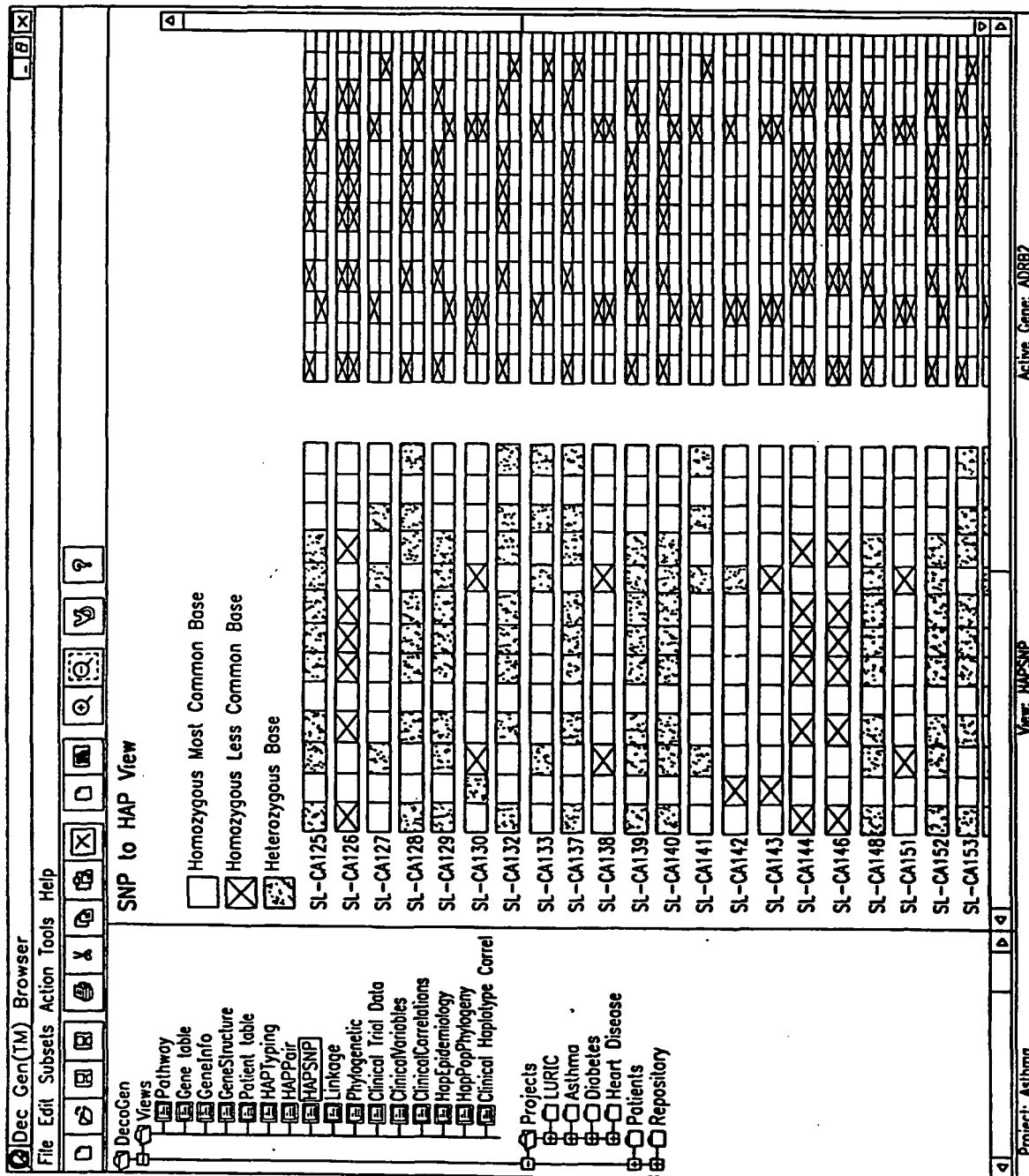
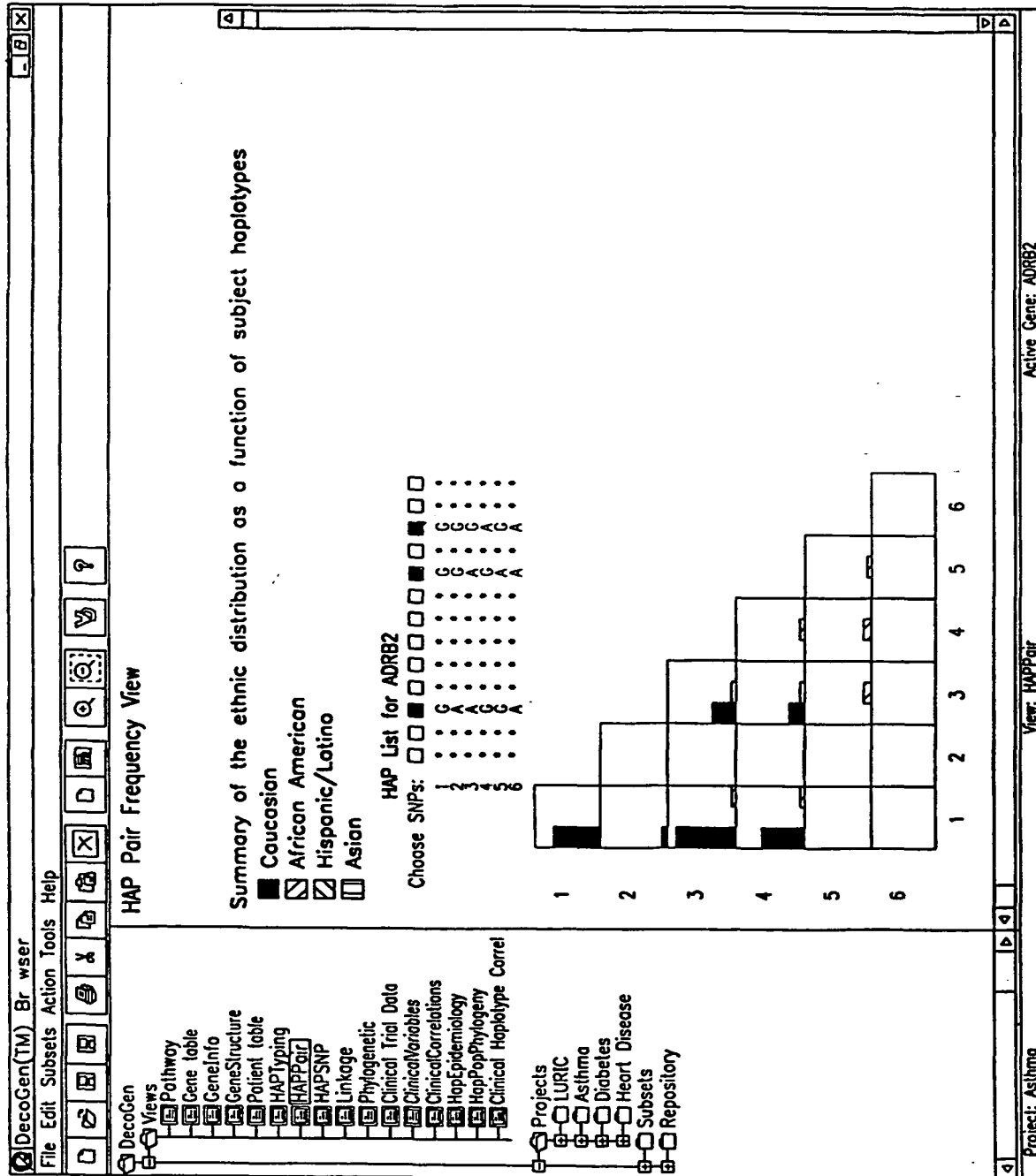
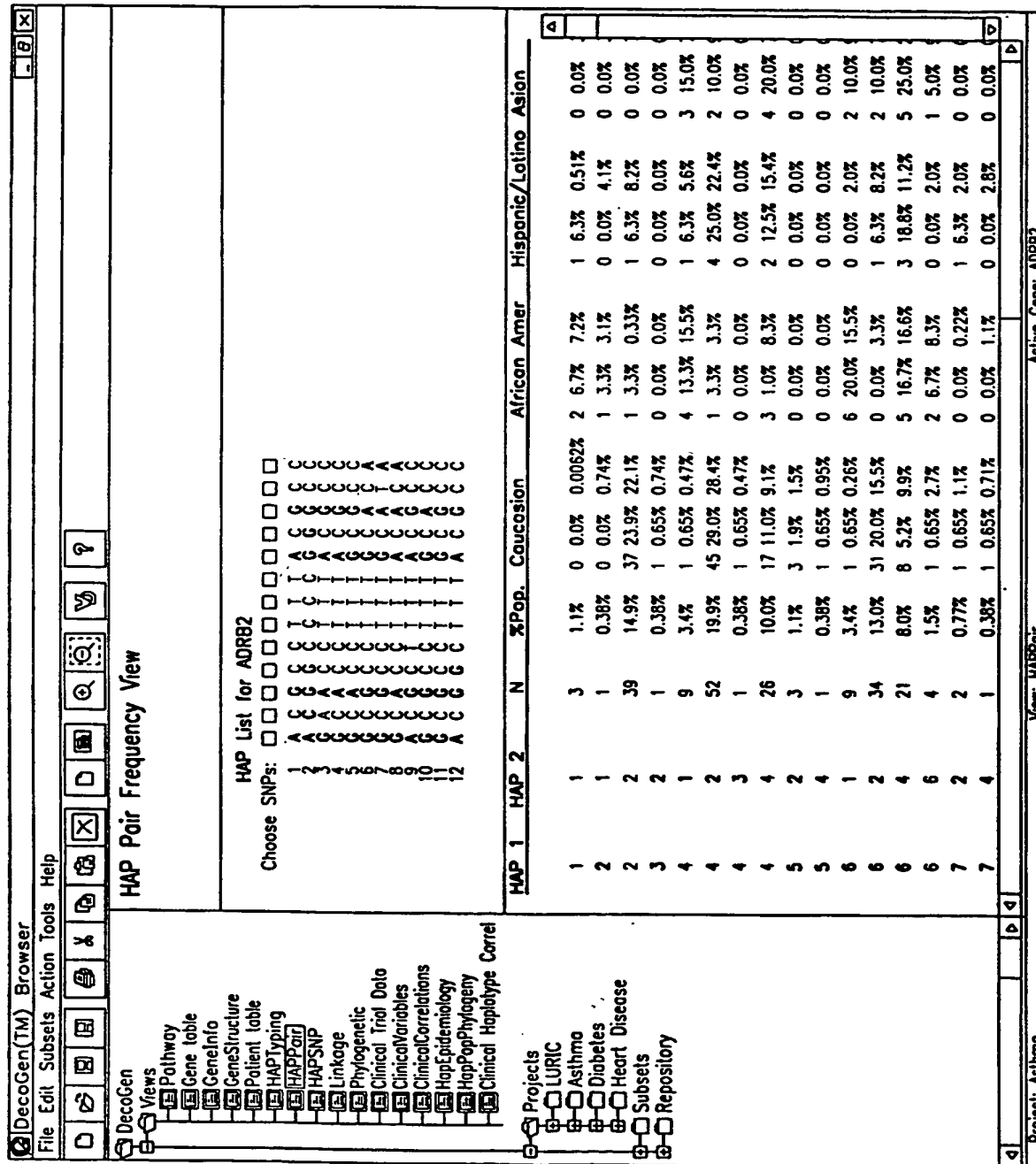


FIG. 3I



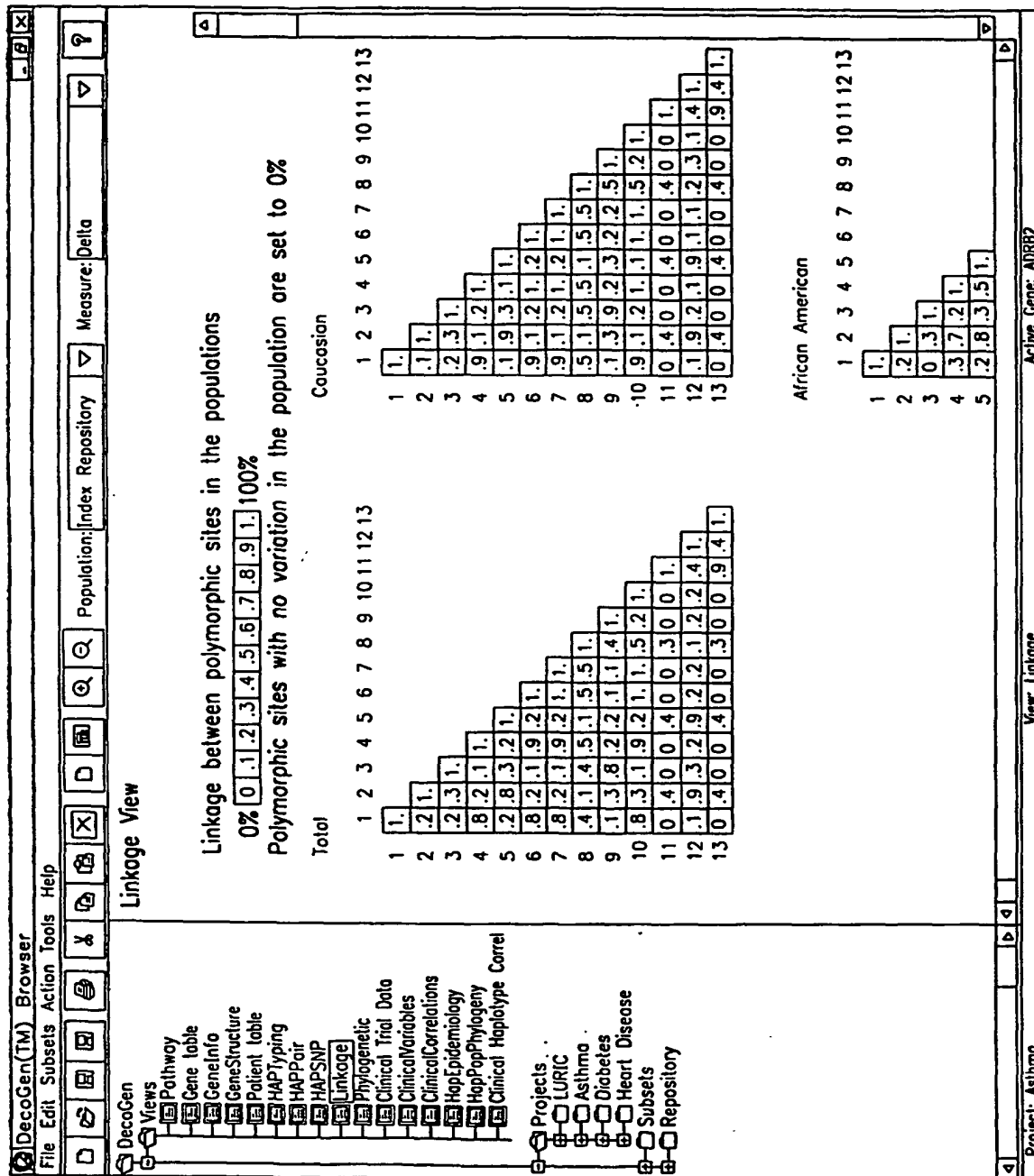
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FIG. 32



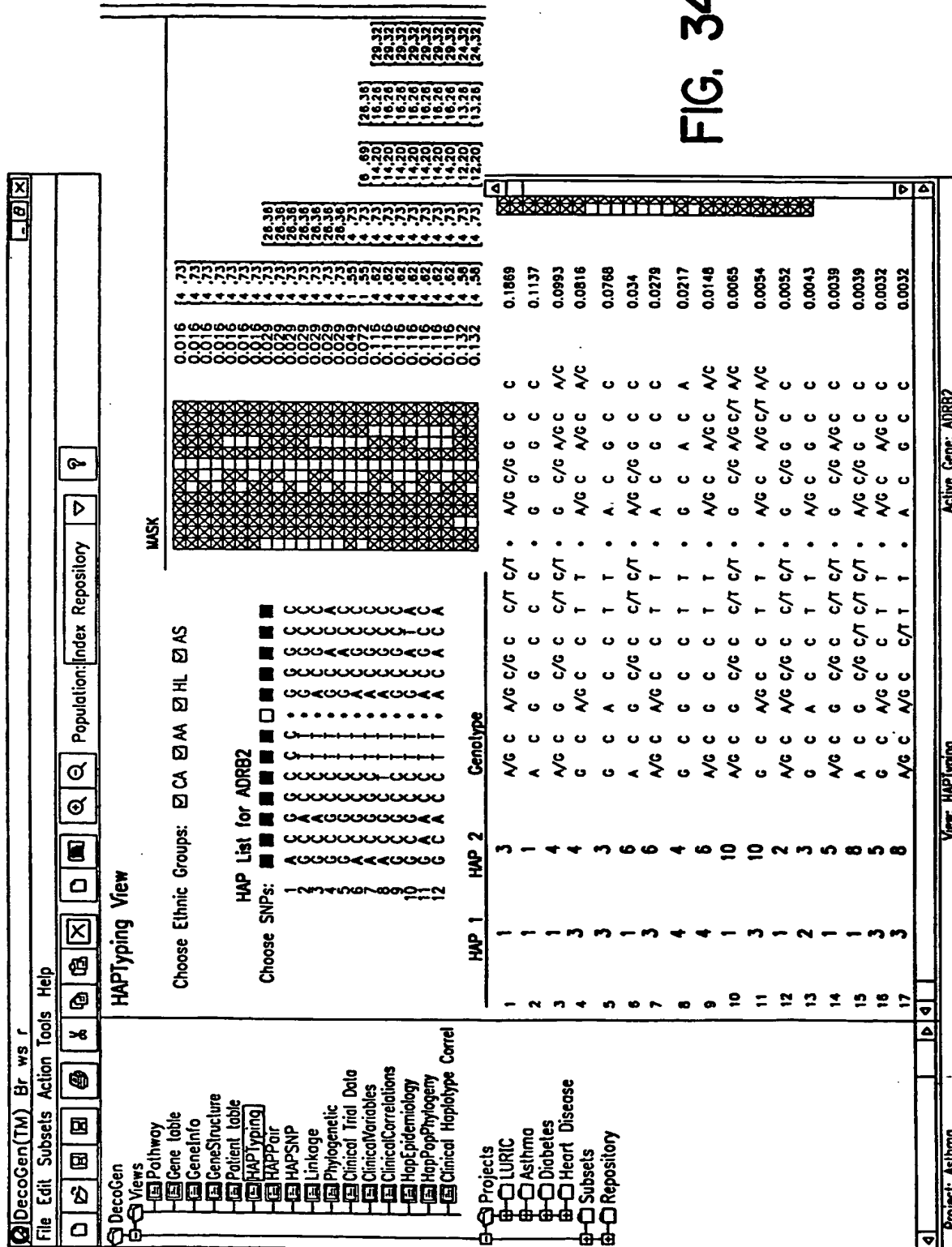
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FIG. 33



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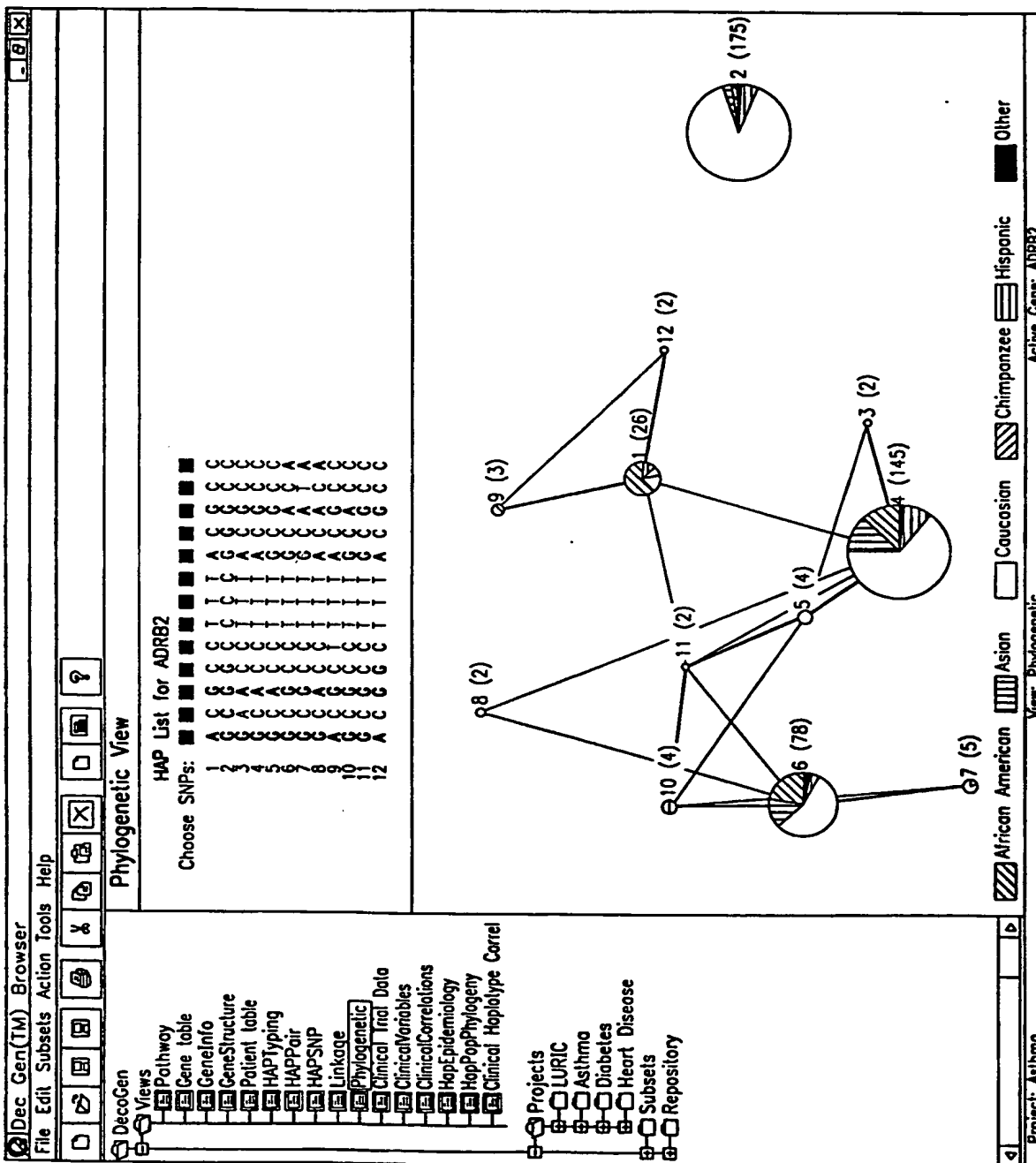
FIG. 34



SUBSTITUTE SHEET (RULE 26)

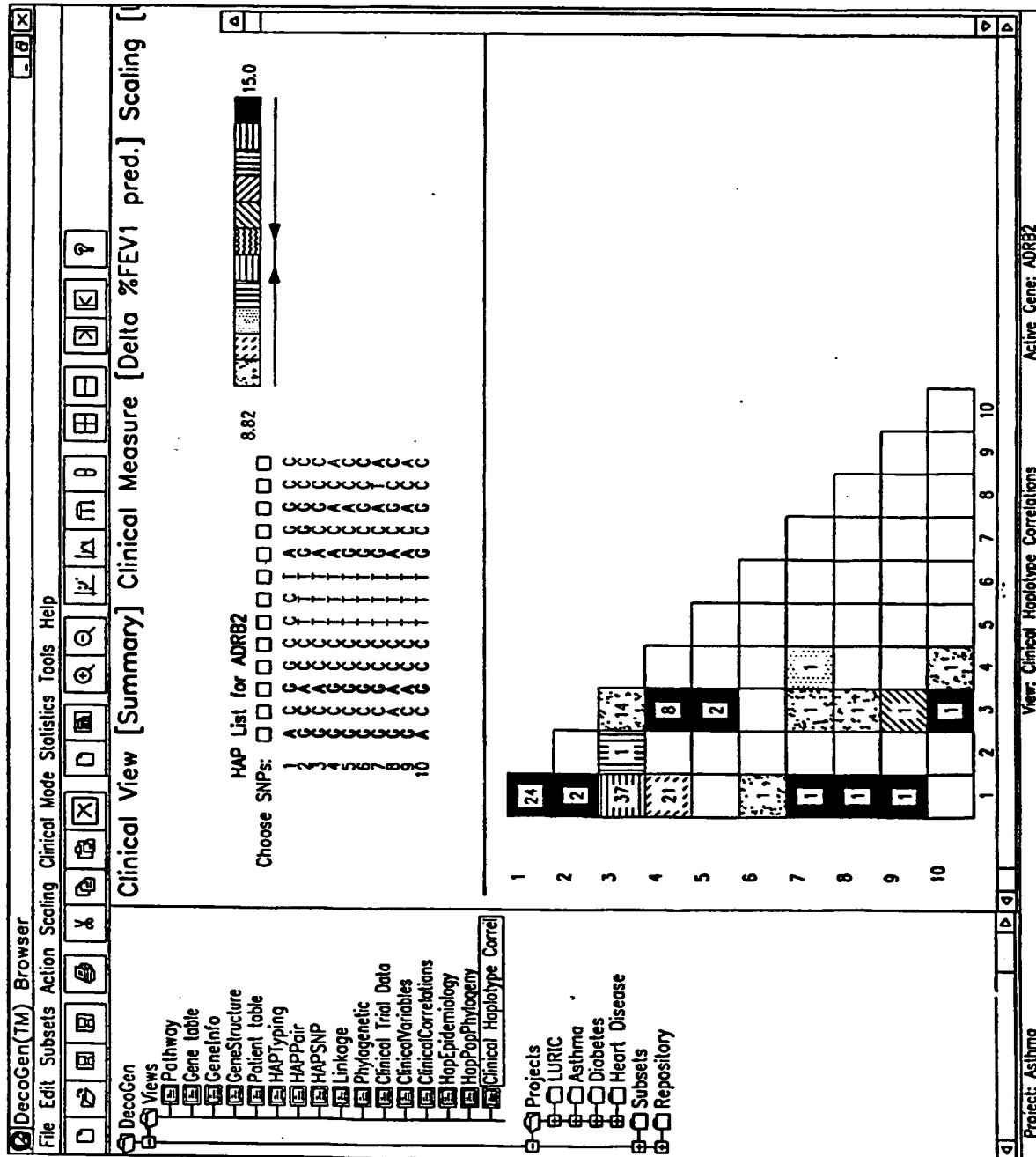
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FIG. 35



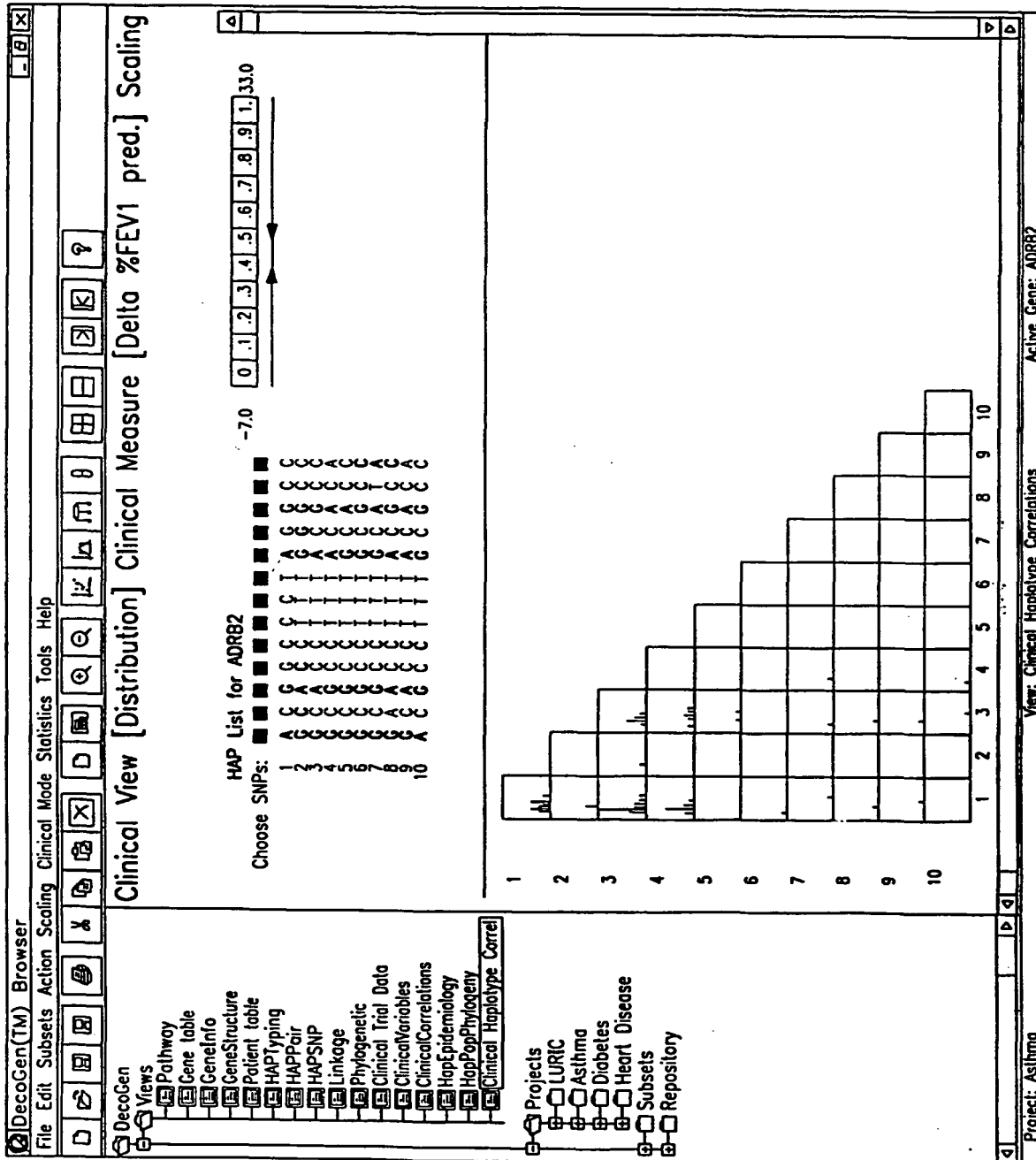
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FIG. 36



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FIG. 37



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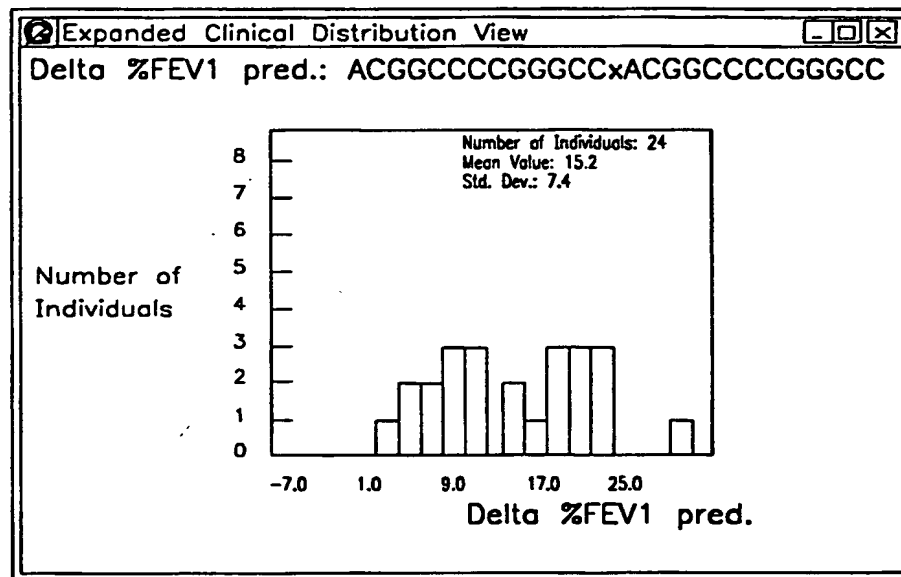


FIG. 38

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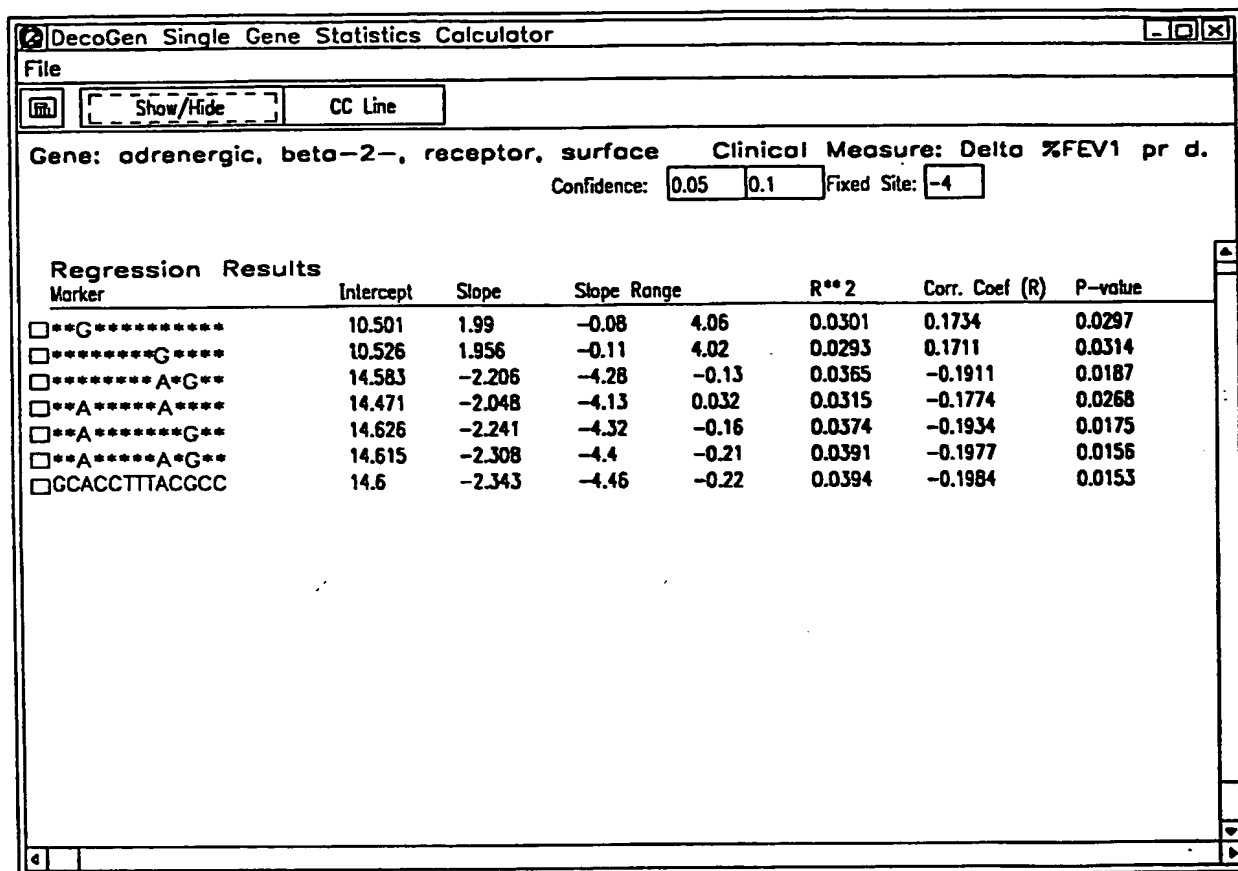


FIG. 39A

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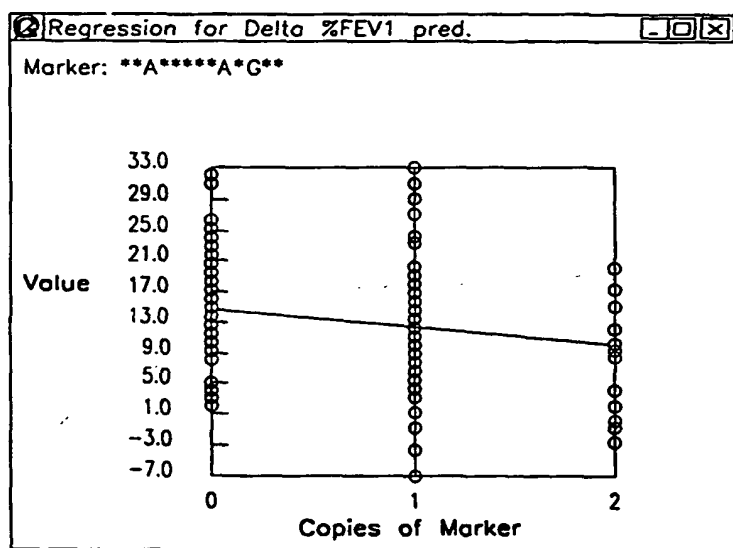
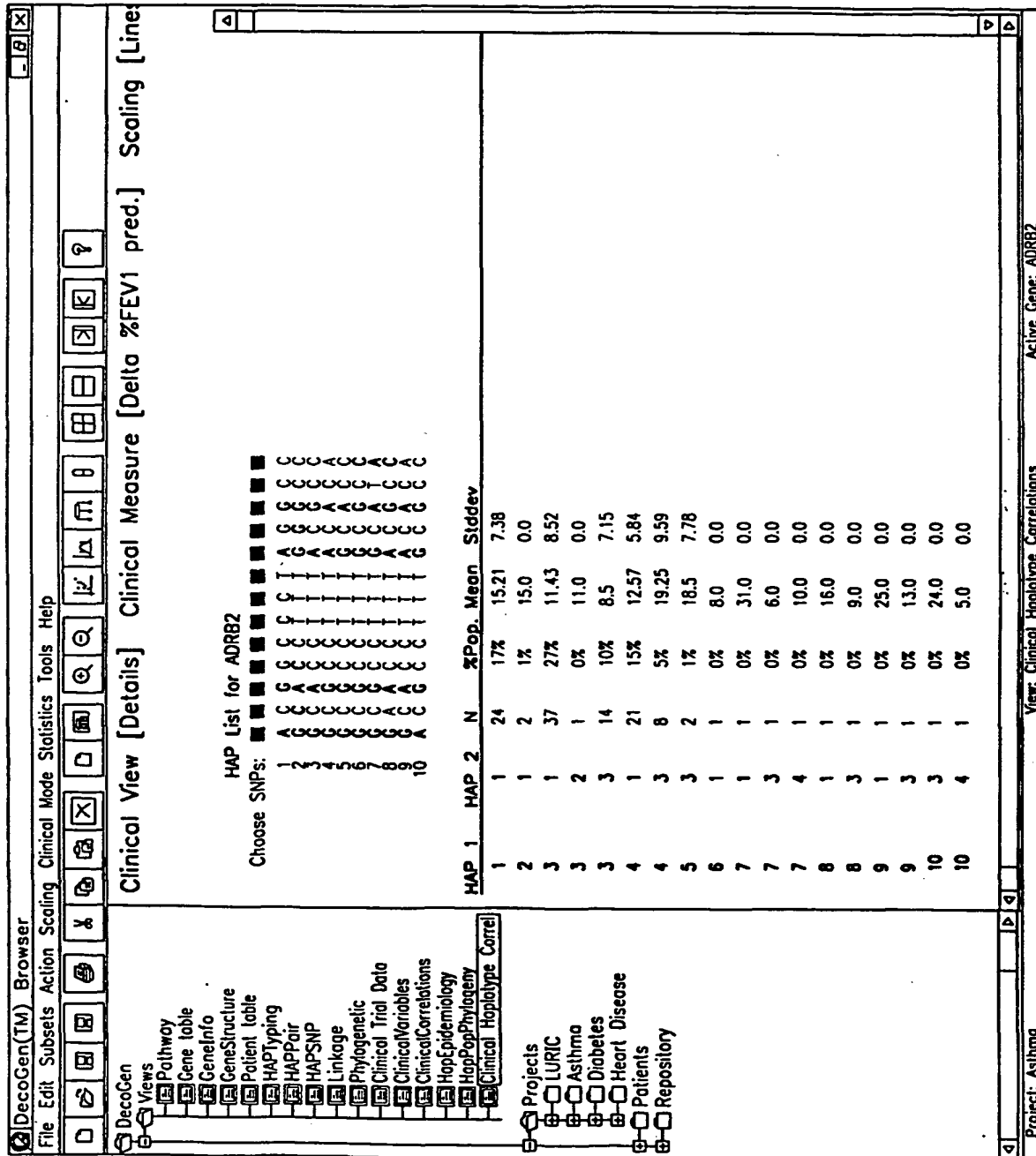


FIG. 39B

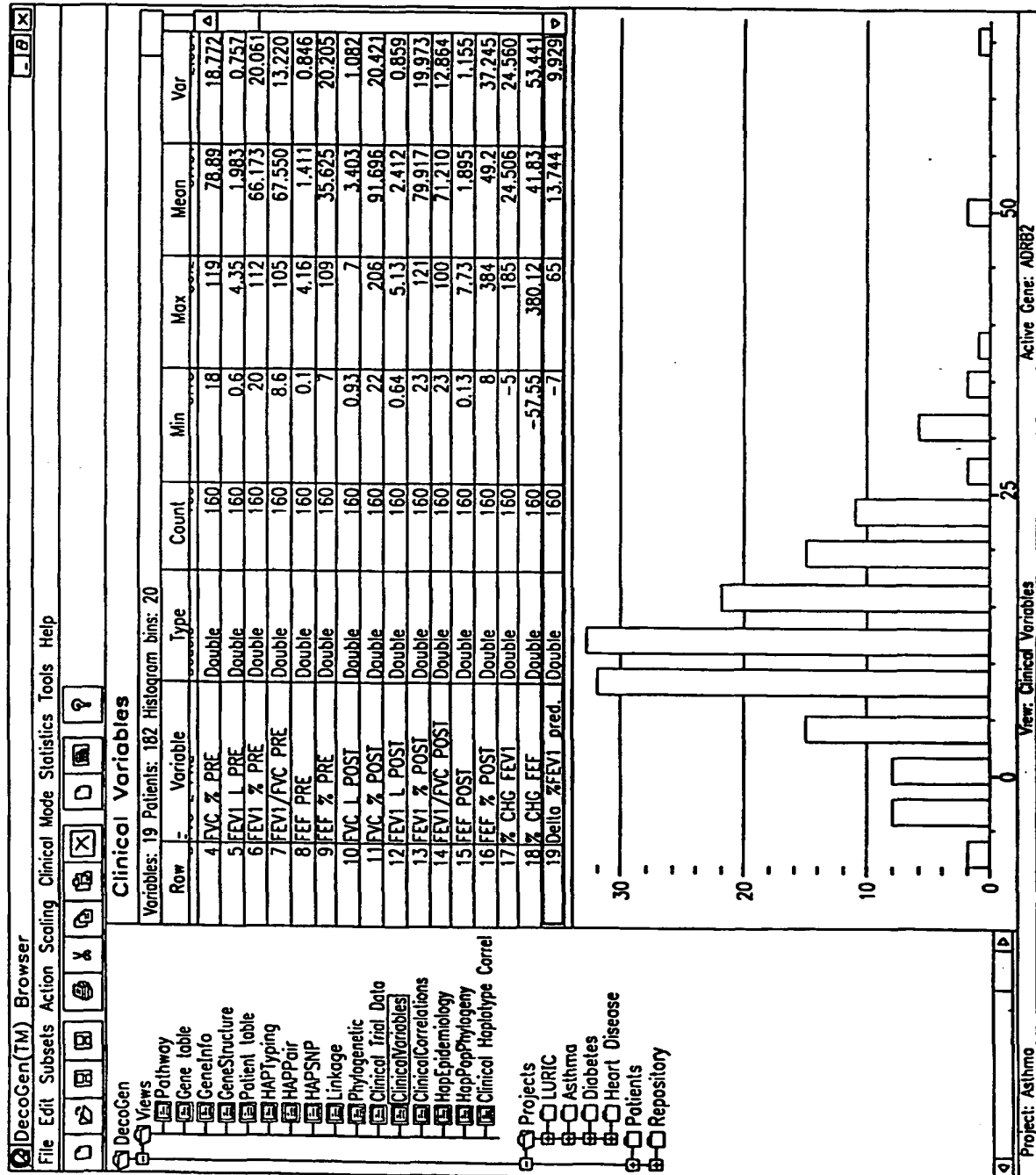
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FIG. 40



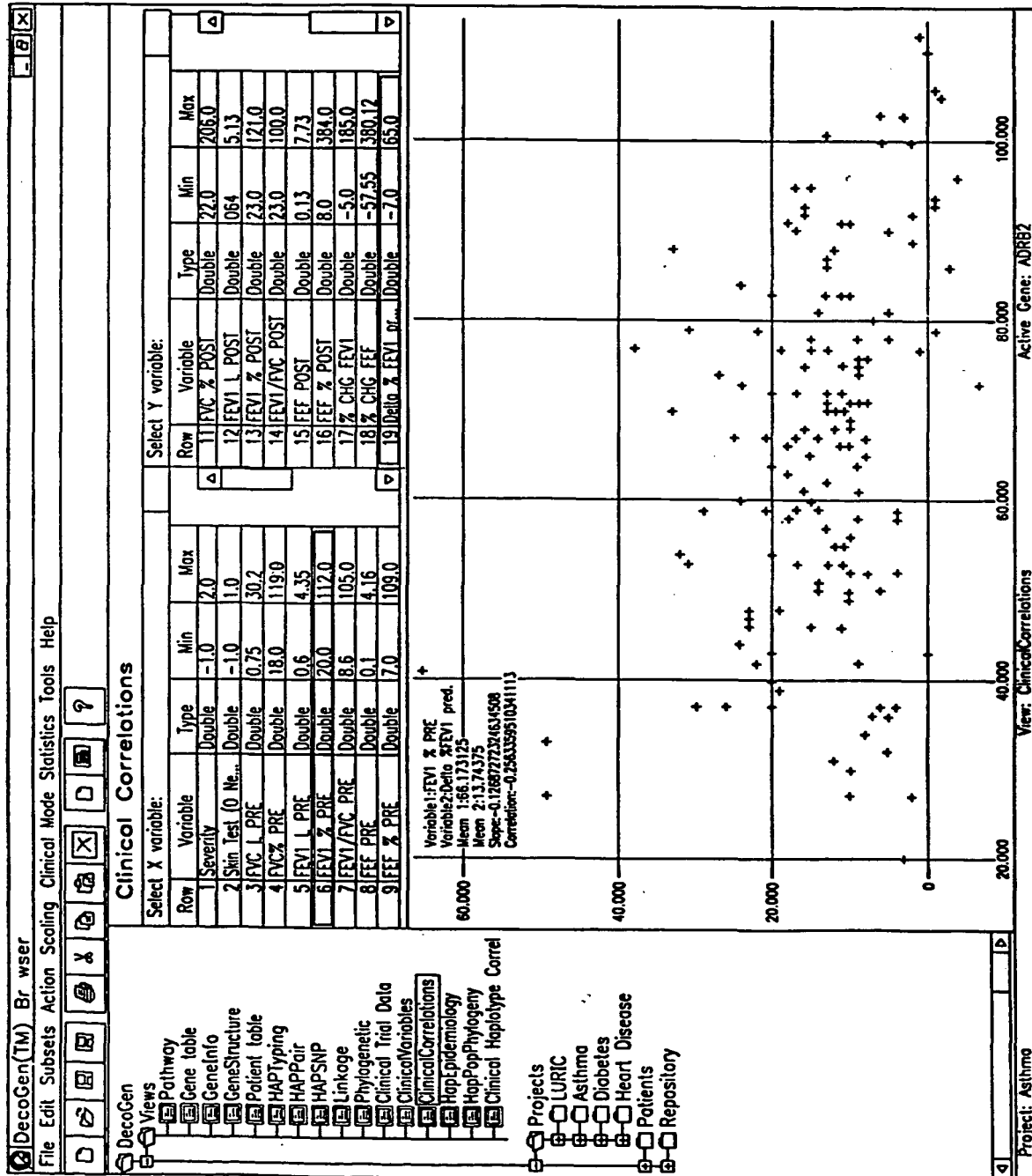
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FIG. 42



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FIG. 43



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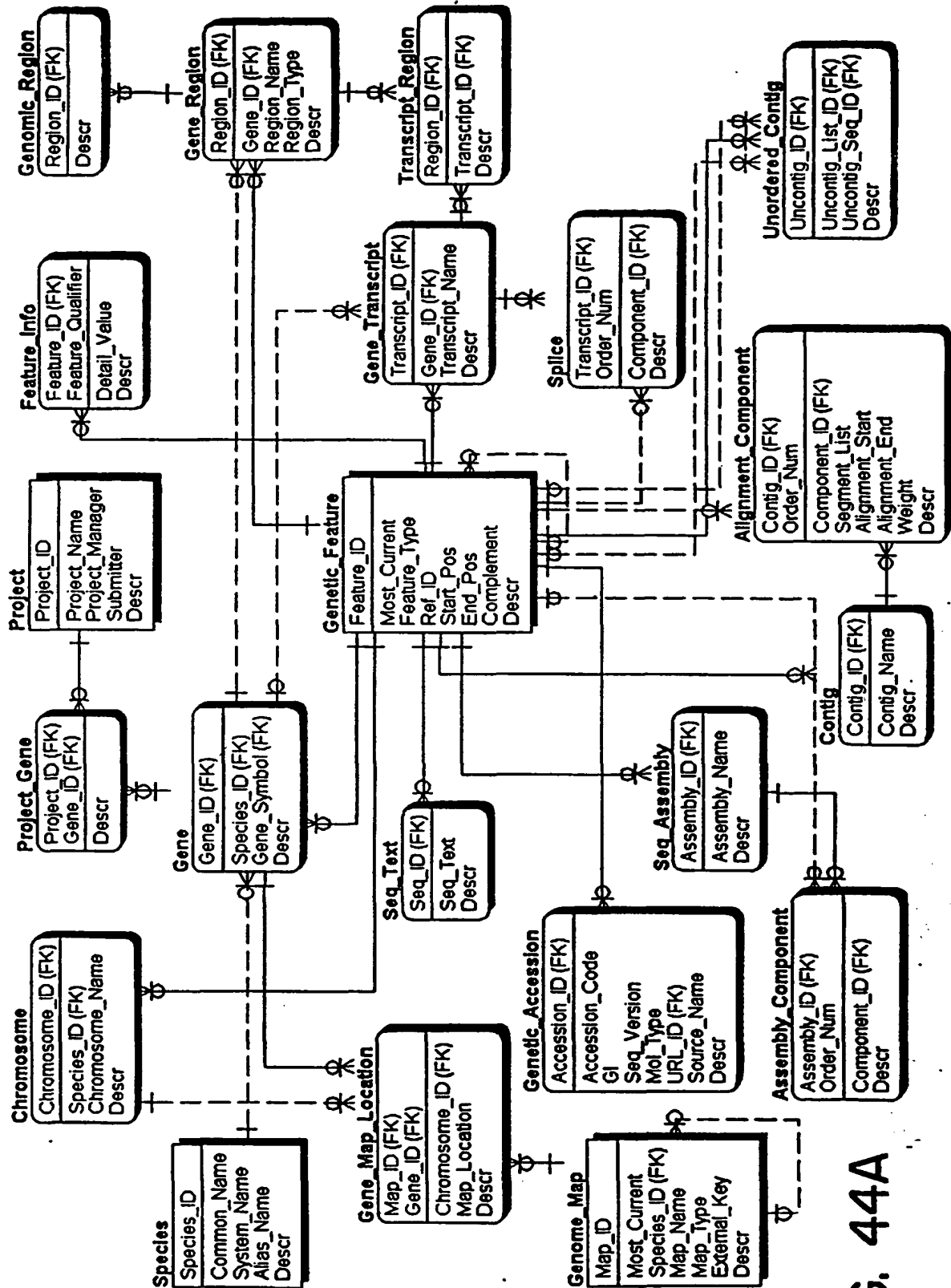


FIG. 44A

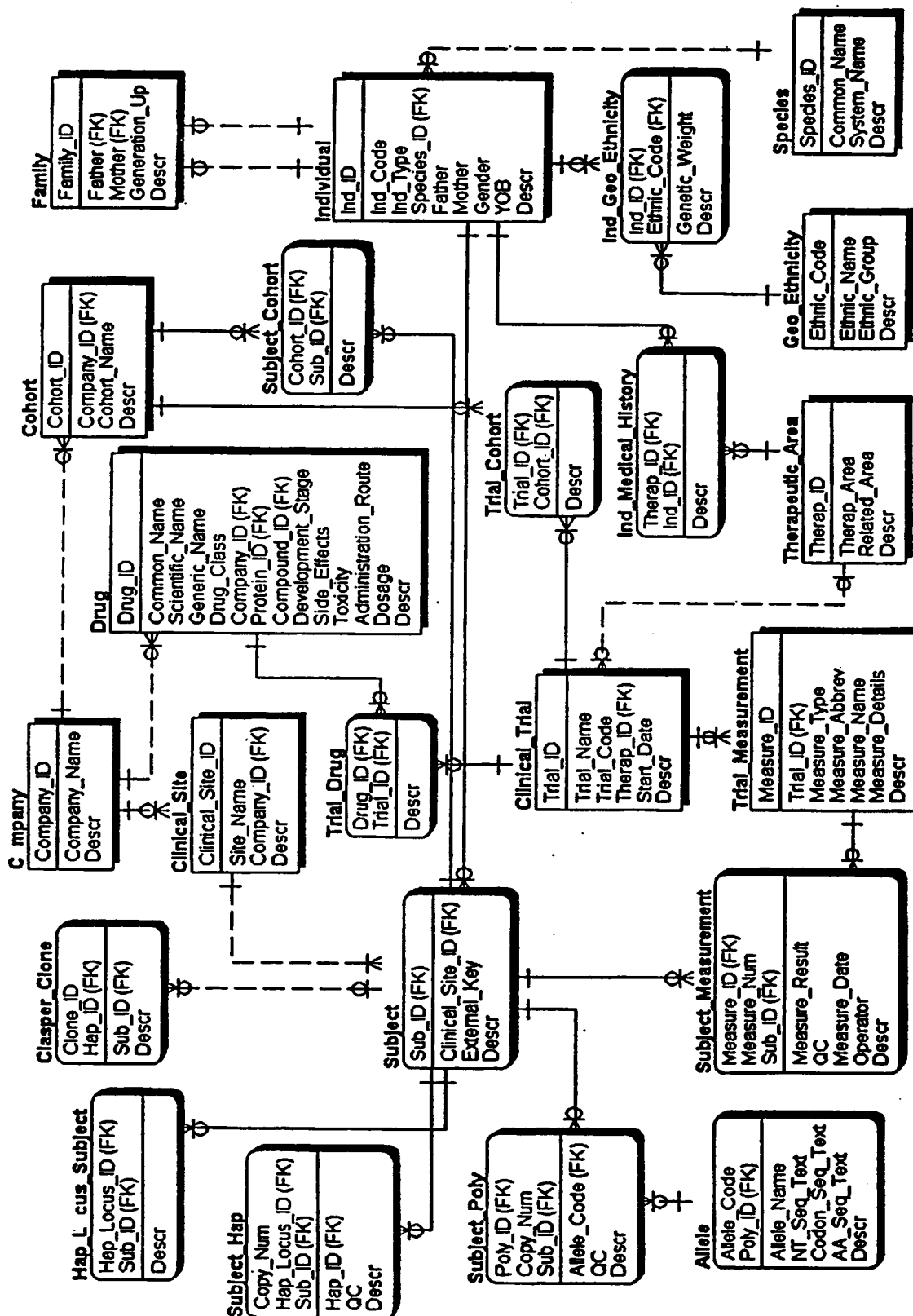


FIG. 44B

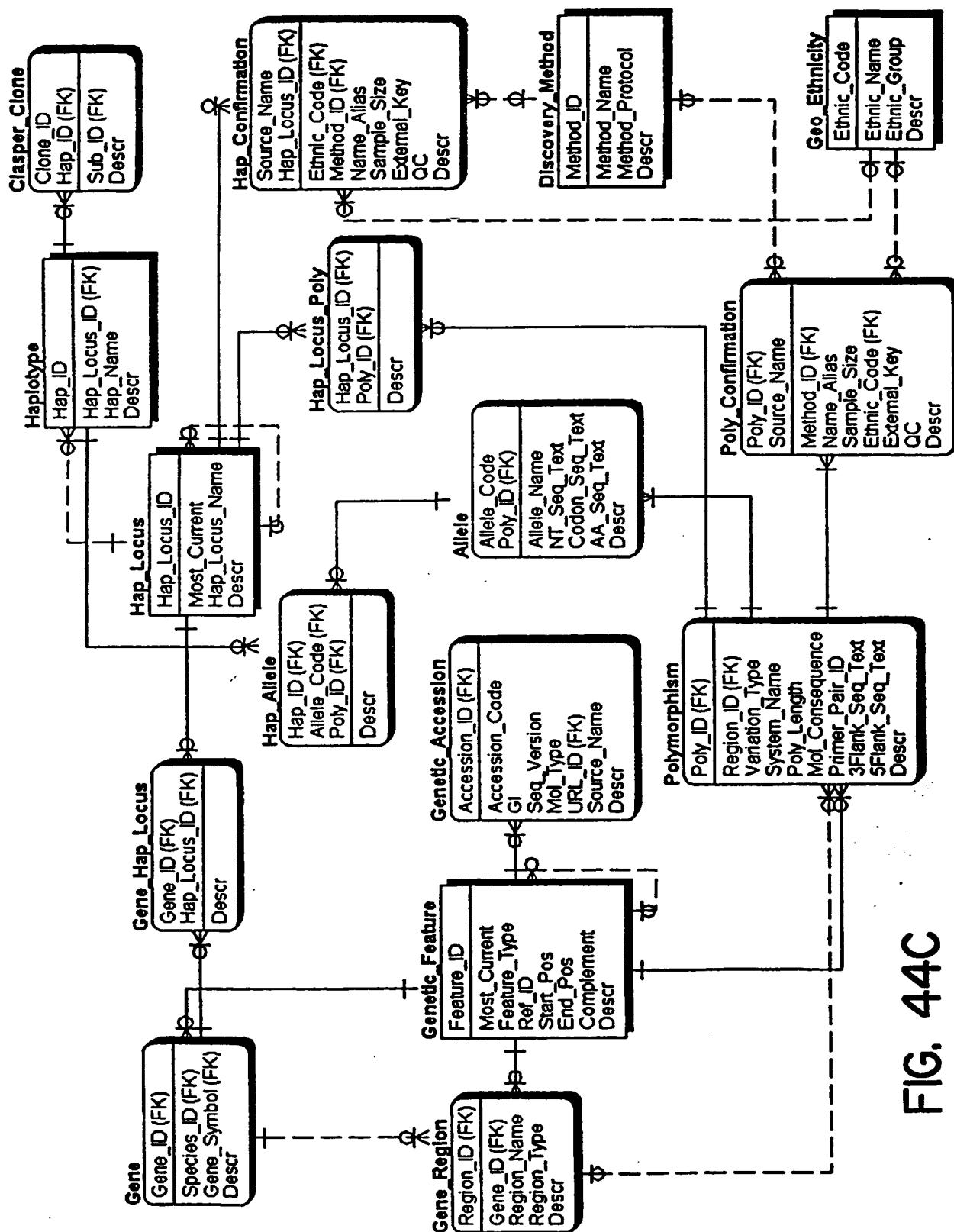


FIG. 44C

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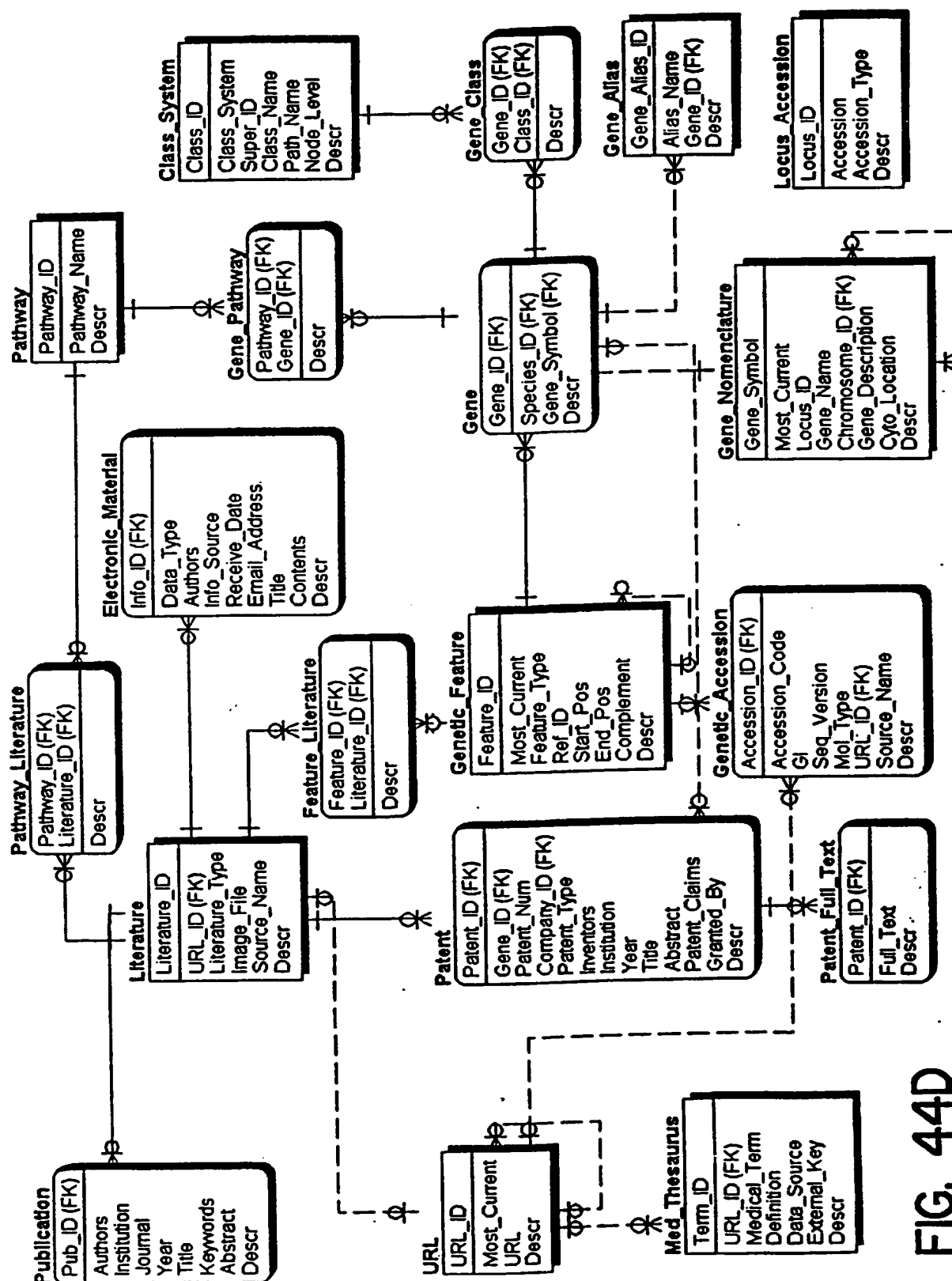


FIG. 44D

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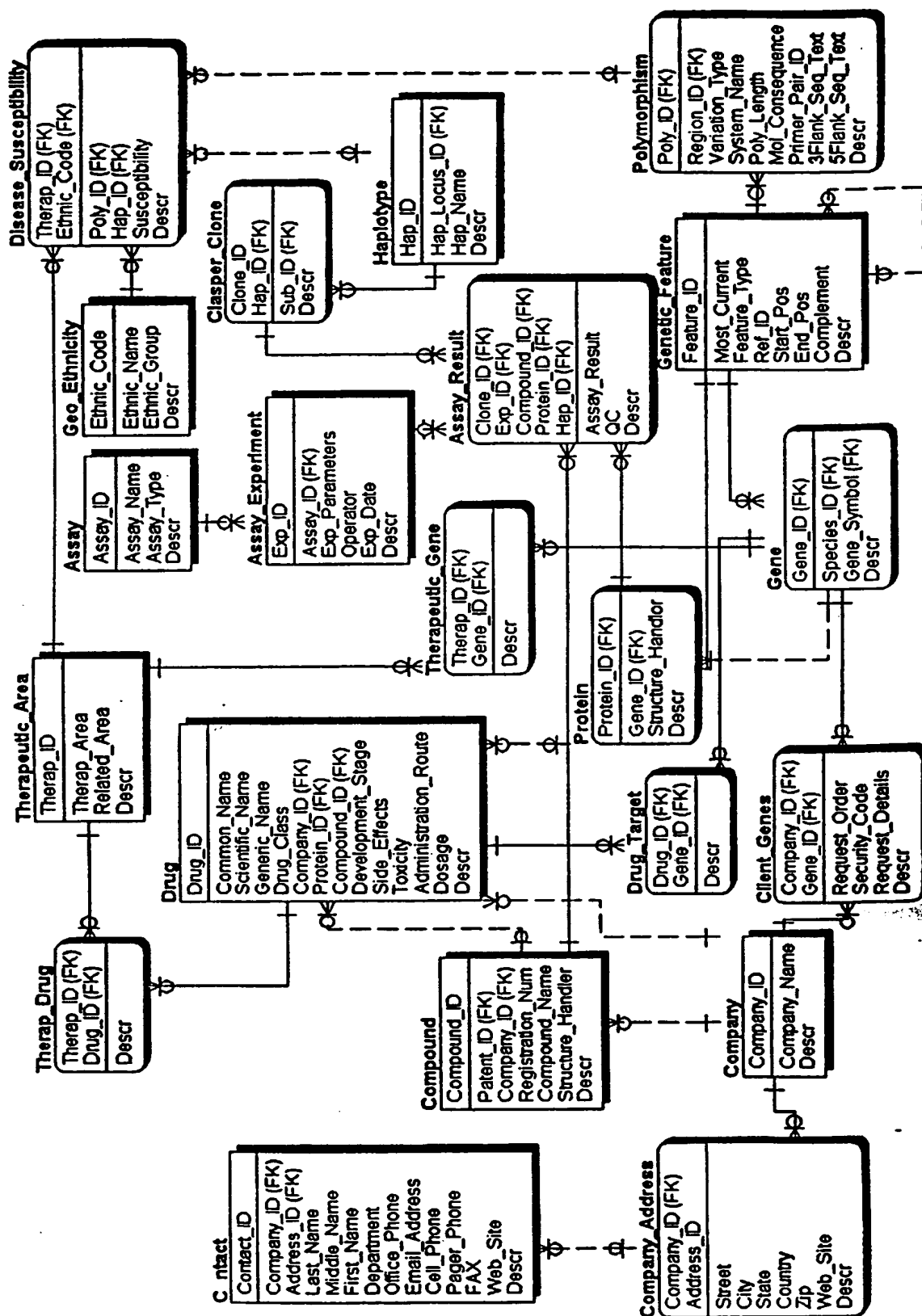
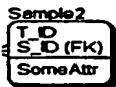


FIG. 44E

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Legend of Figures:

Rectangle Boxes: Tables in the database.



Rounded Boxes: Children tables that depend on their parent tables. This dependency requires that a parent record to be in existence before a child record can be created.

- 2: Identifying parent / child relationship. It depicts the not nullable 1-to-0-or-many relationship.
- 4: Non-identifying parent / child relationship. It represents the nullable 0-or-1-to-many relationship.
- 6: Identifying parent / child relationship. It depicts the not nullable 1-to-1-or-many relationship.
- 8: Non-identifying parent / child relationship. It represents the not nullable 1-to-1-or-many relationship.
- 10: Identifying parent / child relationship. It depicts the not nullable 1-to-exact-1 relationship.
- 12: Non-identifying parent / child relationship. It represents the nullable 0-or-1-to-exact-1 relationship.
- 14: Non-identifying parent / child relationship. It represents the not nullable 0-or-1-to-many relationship.

FIG. 44F

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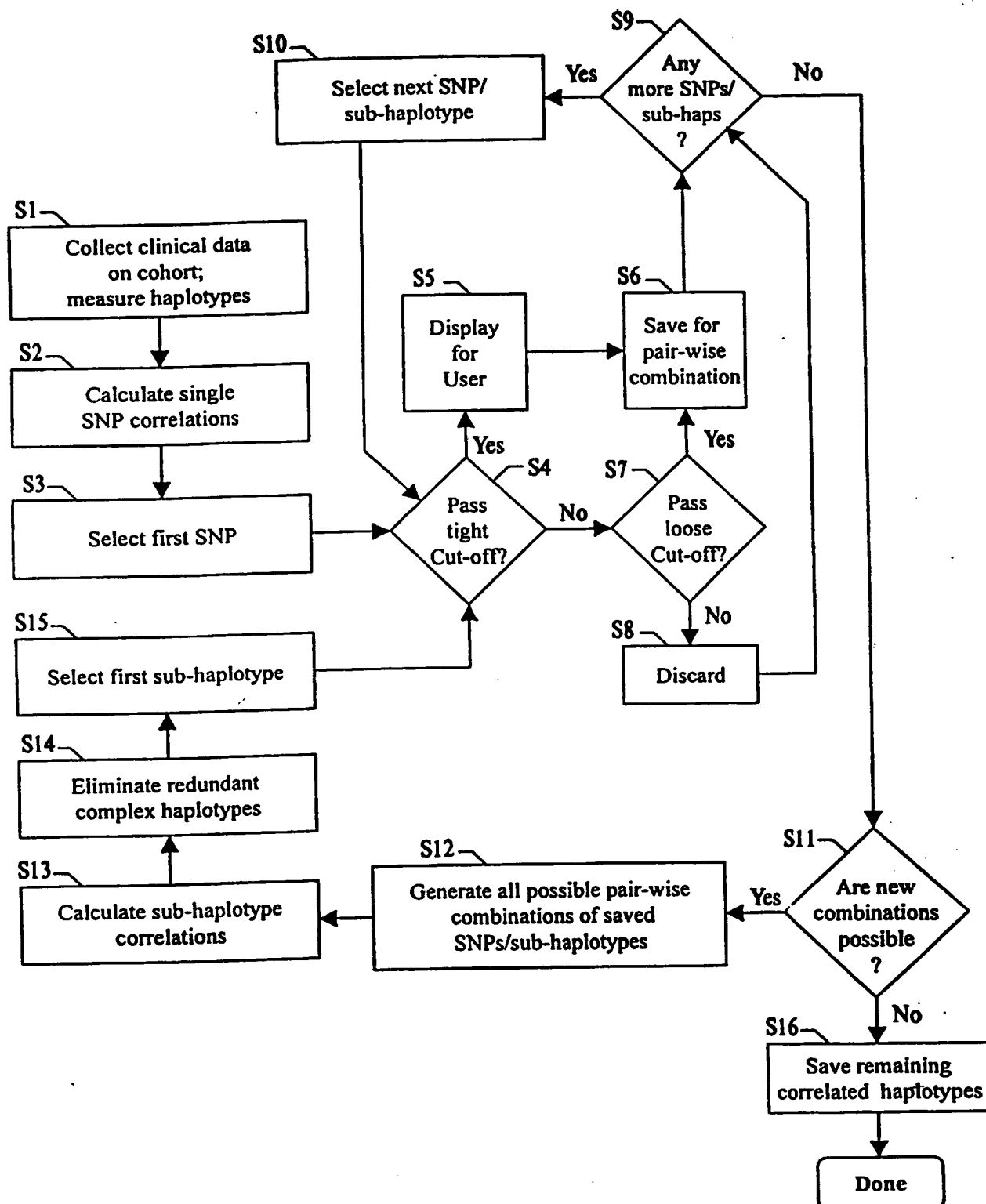


FIG. 45

SUBSTITUTE SHEET (RULE 26)

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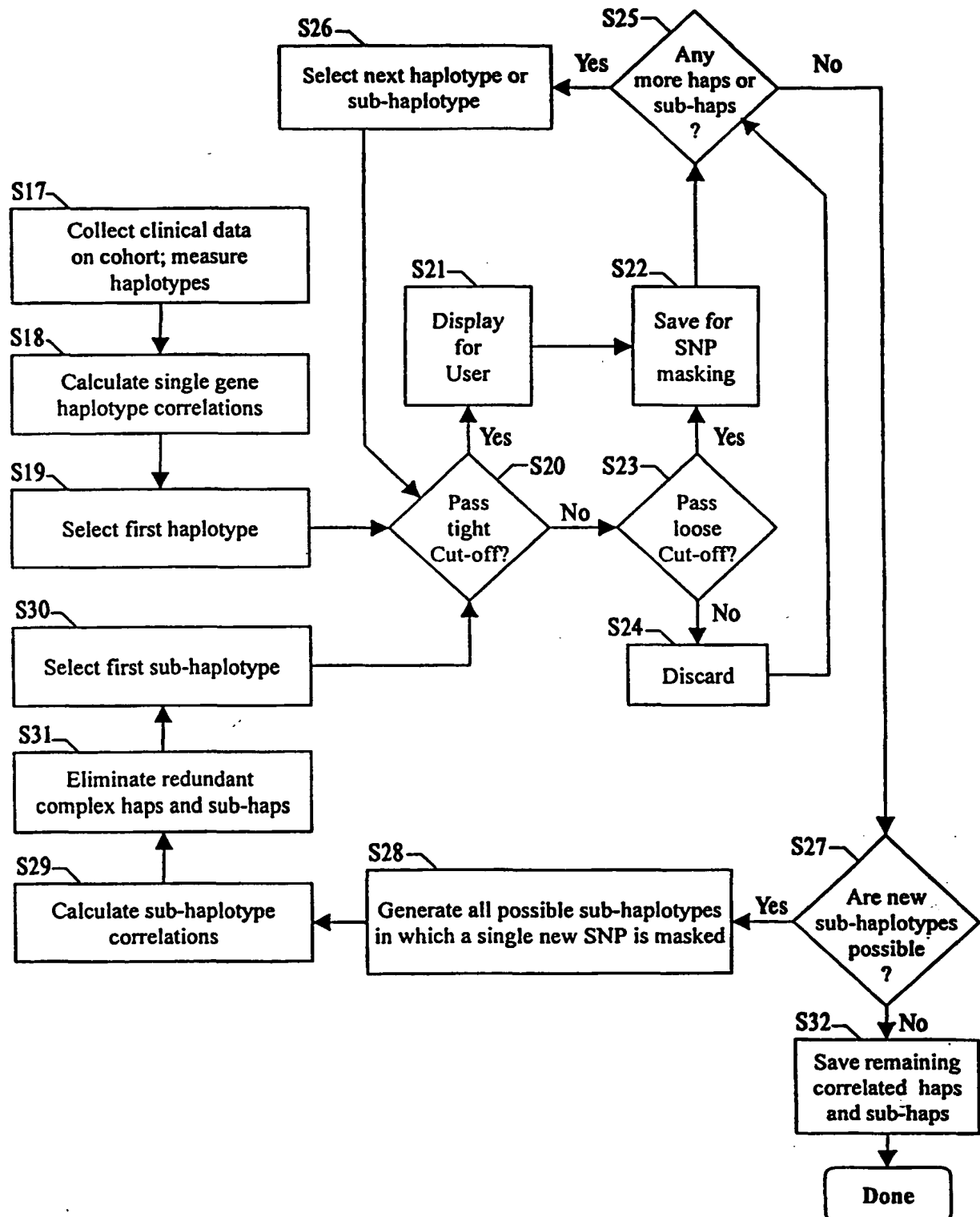


FIG. 46

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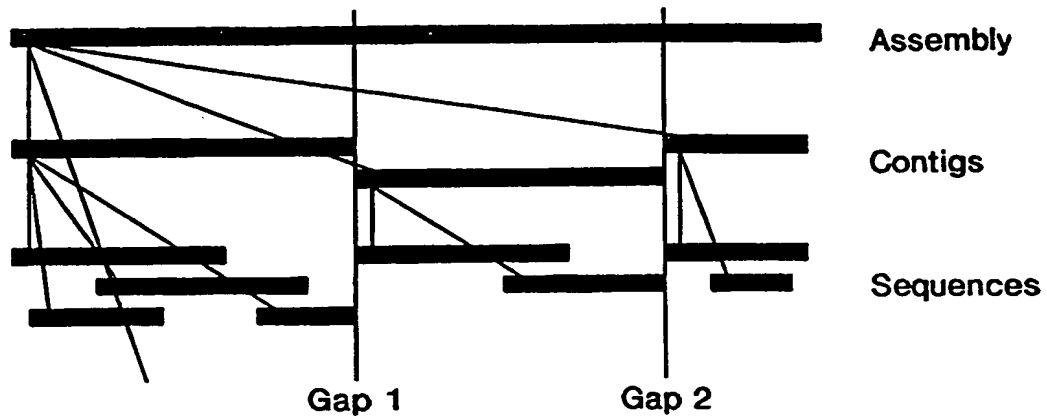


FIG. 47

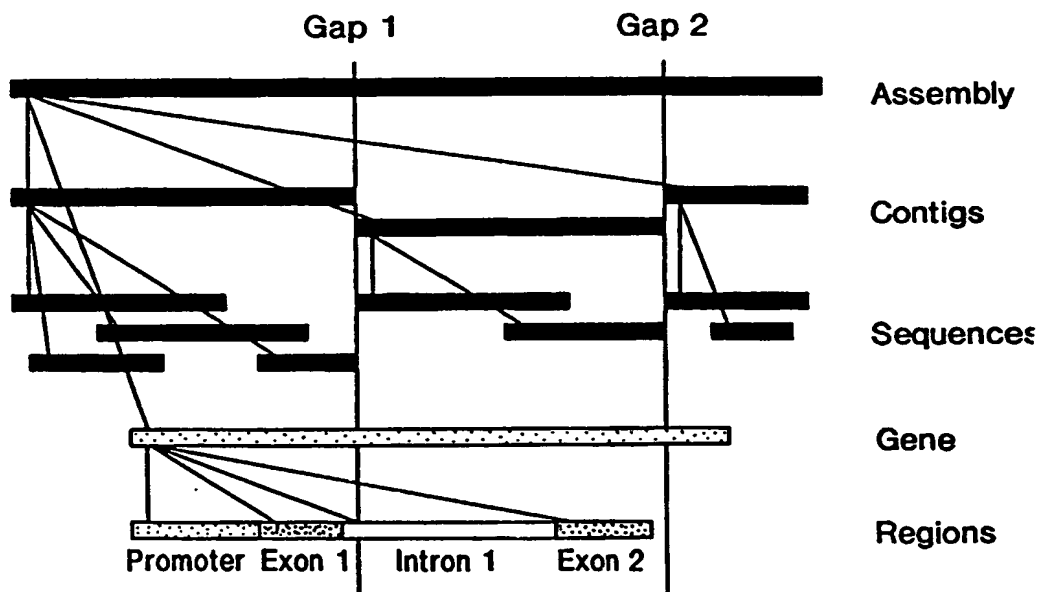


FIG. 48

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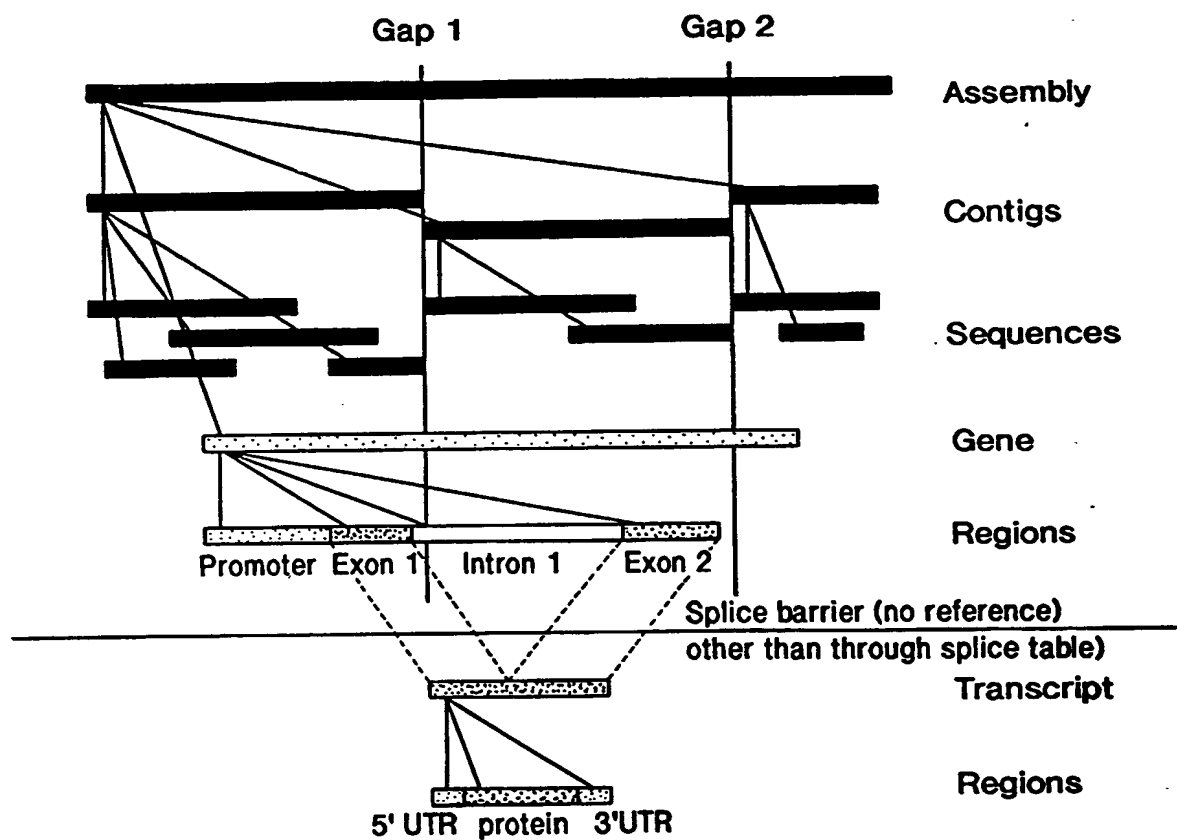


FIG. 49